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ABSTRACT

The papers in this volume are revisions of those presented at the Conference on Economics and Mental Health. The purposes of these papers and the conference at which they were discussed were to identify issues to facilitate wise public decision-making about mental health care, to assess the current state of knowledge, and to suggest directions for economic research. The five papers consider difficulties caused by the lack of adequate understanding of what constitutes mental "health," and the lack of consensus about the effectiveness of various forms of therapy. The first paper analyzes the benefits and costs of alternative mental illness therapies. The next paper explores the extent to which insurance stimulates demand and considers the potential long-term effects of widespread insurance coverage on demand for mental health services. Two subsequent papers highlight the need for improved understanding of the nature of the varied resources employed in the mental health care industry. The growing political and professional pressures for deinstitutionalization and the problems of substituting community-based therapies are the focal point of the final paper. (NRB)

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Economics and Mental Health

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PREFACE

Today's mental health service system is in a state of rapid flux. Changing patterns in the use and financing of mental health services and in the distribution and responsibilities of professional staff are only a few of the important issues confronting the mental health services community at the beginning of the 1980s.

In 1979, the Division of Biometry and Epidemiology, National Institute of Mental Health (NIMH), established a new research grant program in Mental Health Service System Research. As its title implies, the focus of this program is on the system-related aspects of mental health care in the United States. Several disciplines that have been involved in the field of health services research were subsequently encouraged to provide their critical perspectives on the mental health service delivery system.

Health economists have a longstanding expertise in both multidisciplinary research and the health services research field. Accordingly, the Division of Biometry and Epidemiology of the NIMH sponsored a Conference on Economics and Mental Health in Bethesda, Maryland on December 13-14, 1979. The purpose of the conference was to: (1) assess the state of the art of economics as applied to mental health services and policy, and (2) suggest promising areas of research in mental health economics. In addition, the conference was part of the initiation of a new, ongoing grant program in Mental Health Service System Research, designed to encourage work by economists on problems of mental health services and policy.

The papers in this volume are revisions of those presented at this conference. Each paper was discussed formally by an academic economist and a Federal government representative. Many of the discussants' remarks led to changes in the final, published versions of the papers. It is hoped that publication of these papers will stimulate research in the economics of mental illness.

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INTRODUCTION

Thomas G. McGuire

Burton A. Weisbrod

Imagine a commodity with the following characteristics:

-- the amounts of resources devoted to it are growing rapidly;

-- governments, Federal, State and local, are the principal sources of financial support for the industry;

-- private nonprofit organizations are major providers of the commodity, sometimes with their own funds but often with governmental funds;

-- the effectiveness of the commodity in accomplishing what it claims to accomplish is very difficult to assess;

-- new producers of the commodity are entering the industry in substantial numbers, but each entrant is providing an identifiably different version of the generic commodity;

-- the new producers, claiming that their products are as effective as those of the traditional producers, are struggling to have their products also covered by insurance;

-- technical change has transformed the supply side from one dominated by large government-run institutions to widely dispersed, small, more independent providers;

-- the commodity is so important to some individuals that access cannot legally be denied because of inability to pay;

-- many consumers can purchase the commodity at a price near zero, because they have "insurance;"

-- government agencies, recognizing these conditions, are under continucus and conflicting pressure to license and not to license the new producers, to restrict entry and to facilitate competition, to expand insurance coverage to encompass some new producers and to hold down expenditures by not expanding it;

-- government agencies and private-nonprofit organizations, being principal suppliers but being unwilling to seek profit maximization as a goal, engage in benefit-cost analysis that is casual at best.

Surely such a commodity, its industry, and the governmental regulatory role would attract much economic research. Mental illness treatment is just such a commodity; yet the attention it has received by economists has been minute.

Mental illness has, for some time, been recognized as a serious social problem. The President's Commission on Mental Health estimated that 15 percent of the U.S. population is afflicted by mental illness during a year, and called mental illness our "major public health problem." The costs imposed by mental illness on victims and on society are hard to measure but widely acknowledged to be enormous, no doubt dwarfing the one percent of national product devoted to treating mental illness.

Why has such a serious problem received so little attention from economists? Twenty-five years ago, most mental health care was provided in State and county mental hospitals, settings in which the allocation device--"professional authority"--did not seem to be amenable to analysis with the usual tools of economics. The excuse that economists' tools don't fit the problem of resource allocation in mental health, while of some validity 25 years ago, is not valid today. There has been improvement in the methods of economic analysis, but more importantly, there has been technical change in the mental health sector itself. Spurred by advances in psychopharmacology and by judicial acknowledgment of patients' rights to treatment in the "least restrictive setting," treatment for the seriously mentally ill has shifted in emphasis from long-term hospitalization to short-term hospitalization or no hospitalization accompanied by drug therapy and treatment in community settings. Over the same period larger and larger numbers of less seriously ill persons have sought to "buy" psychotherapy from an expanded range of providers.

As mental health care has moved out of the hospitals and into the community, it has increasingly shifted into settings in which markets function. The perspectives of economics, including analysis of consumer behavior in response to price changes, supplier behavior in response to competition and regulation, and cost-benefit analysis, can effectively be brought to bear on problems in mental health services, as the papers in this volume make clear.

This process of focusing economists' attention on the mental health area is beginning. The purposes of the papers in this volume and the conference at which they were discussed were to identify issues which, when better understood, would facilitate wise public decision making regarding mental health care, to assess the state of knowledge about them, and to suggest directions for economic research.

A common thread running through all five papers is the difficulties caused by the lack of adequate understanding of what constitutes mental "health," and the lack of consensus about the effectiveness of various forms of therapy. Progress in understanding mental illness and treatment is coming slowly; public policy is unlikely to

be rescued by "breakthroughs" in knowledge. In the meantime public policy must go forward to set the terms of financing and regulation of mental health services in the presence of substantial uncertainty about the ultimate benefits and costs of policy alternatives.

The fact that there is so much uncertainty regarding the effectiveness of particular resource inputs for the mentally ill, and, relatedly, that there is little professional consensus as to what constitutes mental "health" has led private insurance companies and the government to be especially wary of offering coverage for mental health services. Given the combination of (1) a zero or, at least, "low" price of treatment for the patient, (2) the incentive of providers to extend treatment if they see any benefit to the patient, and (3) the patient's lack of expertise in judging the value of added therapy, the ambiguity regarding "mental health" provides a potential for enormous expenditures on therapy. Not surprisingly, therefore, coverage for mental illness is less than for physical illness in most private insurance plans and in most proposed national health insurance bills.

The extent to which insurance stimulates demand is of course an empirical question, for which the evidence is explored in Thomas McGuire's paper. As he points out, in a context where many potential users of mental health services are ignorant and suspicious of mental illness and its treatment, widespread insurance coverage, by changing attitudes towards care, can have long term effects on demand.

Difficulties in measuring output mean difficulties in monitoring services to be sure what is paid for is "appropriate." Conventional devices to restrain "overutilization," such as utilization and peer review, may work relatively badly in mental health. Experts are often in disagreement about the appropriate course of treatment. The experts who are best informed about a particular patient are generally those who are actually providing the care; they are hardly in a position to give objective counsel. Such conflict-of-interest circumstances have received some attention by economists in the context of principal-agent relationships--the service-provider being both an agent for his or her patient and a principal acting on his or her own behalf. The applicability of this analytic framework to mental health care seems evident.

It is just such situations, involving "asymmetric" information--the service provider knowing more about the quality and effectiveness of the care than does the consumer-patient--that often gives rise to demands upon government for regulation. Alvin Klevorick points out the variety of direct regulatory mechanisms that operate in the mental health treatment area, including occupational licensure (through licensing, certification and registration), Government-mandated planning agencies for facilities, and self-policing by professional associations. How effectively each operates and under what circumstances they are more effective, or less, than such indirect regulatory mechanisms as competition in the private marketplace constitutes a set of challenging research questions.

W. Lee Hansen and Alvin Klevorick both highlight the need for improved understanding of the nature of the varied resources that have been and actually are now being employed in the mental health care industry. Among the researchable matters to which they point are factor-supply issues such as the nature of labor-supply functions and the degree of substitutability across types of mental health providers. Mental health services have traditionally been dominated by psychiatrists. As much as any major part of the health sector, mental health has seen "physician dominance" challenged by the rise in prestige and responsibility of other professions, notably clinical psychology, psychiatric social work and psychiatric nursing. The substitution of these workers for psychiatrists may well be largely responsible for the dramatic fall in psychiatrists' income relative to other physicians, although much research on such factor substitution remains to be done. Whether members of these professions are substitutable for psychiatrists--in the sense that they can produce the same outputs--or whether changes in personnel mix are simply the result of efforts to economize on expenditures by institutions, the quality of whose output cannot be easily monitored, is another important area for economic research.

Insurers have faced increasing pressure to provide coverage for an ever-widening array of providers (suppliers) of "treatment" for the "mentally ill." Finding it difficult to assess effectiveness of alternative therapies but wishing to control the rate of growth of claims and rates, private and public providers of mental health insurance have faced a dilemma. Consumers, often ill-informed about the therapeutic value of particular treatment resources but facing a marginal price near zero because of third-party payments, are often not constrained to utilize lower-cost treatment approaches. At the same time, prospective providers with new therapeutic approaches see that there is a potential market for any innovation simply because of the relative absence of patient incentives to economize. In many instances patients are treated by expensive (covered) therapies where less expensive (but uncovered) methods would have been at least as effective. When patients, providers and policy-makers are uncertain about the appropriate form of care, many such mismatches are likely to occur.

The mode of treating the chronically mentally ill is a critical dimension of public policy. Wisdom of the traditional dependence on long-term care has come increasingly to be questioned both by budget-conscious Government officials and by mental health professionals who see institutionalization as counter-productive, as breeding patient dependence rather than the independence needed for daily life. The growing political and professional pressures for deinstitutionalization, and the problems of substituting community-based therapies, are the focal point of Stanley Wallack's paper. Again in this context the importance--and, often, the perversity--of incentives becomes clear. This is seen, for example, when he points to the tendency of some hotels and nursing homes to take advantage of the fact that governmental payments do not adequately vary according to the degree of illness of the patients; thus, providers

can "cream-off" the less sick patients. Economists are familiar with the consequences likely to flow from the establishment of a uniform price for goods or services of nonuniform quality. Some variant of Gresham's Law operates, with the result that, in the case of the mentally ill, the high-cost cases receive the least attention. Whether this is actually occurring and, if it is, how effective and how costly various alternatives would be constitute important researchable questions.

Analyzing the benefits and costs of alternative mental illness therapies poses substantial challenges at both conceptual and empirical levels. As Burton Weisbrod points out, it is difficult, to say the least, to specify with confidence what would happen to a particular mentally ill person if he or she had not been treated by one technique or set of inputs but had been treated by another, or had not been treated at all. Determining the facts is a big enough problem, but to this must be added these difficulties: gaining agreement on concepts and measures of "improved mental health," and, to mention just one more problem, valuing effects for which there are either no market prices or the prices are deemed inappropriate. Even when prices are available, they may not be regarded as relevant because of an ethic that willingness-to-pay for treatment, which reflects the person's income and wealth, should not affect access to care.

Substantial governmental and other "third-party" participation in the financing of mental health services has the effect of confronting patients and providers with prices that do not reflect social opportunity costs. As Weisbrod points out, this can cause serious distortions when benefit-cost analyses are undertaken in an effort to evaluate alternative therapeutic approaches. Such analyses are essential, however, since profitability in the sense adopted by the private propriety sector cannot be relied upon to allocate mental health resources efficiently, given the imperfect consumer information, the absence of user charges for many mental health services, and the quantitative importance of governmental and private nonprofit providers.

Benefit-cost analysis is difficult to apply to mental health services. It would be exactly wrong to conclude, however, that benefit-cost analysis should not be vigorously pursued. It is precisely for commodities, such as mental health, where consumers cannot easily weigh costs and benefits, that formal research has value. While benefit-cost analysis in the mental health area is in its infancy, the need to make decisions about whom to treat, and how, makes it unavoidable to do some type of evaluation of alternatives--formal or informal, simple or elaborate. With the technology for treating the mentally ill having undergone or still undergoing such radical change--sharp increases in use of drugs and outpatient or community-based services, and sharp decreases in long-term hospitalization; with the difficulty of defining and measuring benefits; and with the enormous potential for incurring costs for treatment as health insurance coverage is expanded--the importance of benefit-cost assessments of alternatives is great and growing.

As we have repeatedly suggested, many of the topics identified in these papers grow out of the difficulty of gauging effectiveness for much of mental health care. That difficulty, together with minimal barriers to entry, has facilitated introduction of many new, sometimes exotic, approaches to therapy. Hansen notes the importance of these new approaches as influences on the supply of various types of therapists. Klevorick sees the new approaches in the context of pressures for occupational regulation and licensure. To McGuire, the new approaches raise questions about which should be eligible for health care insurance. Wallack focuses on the mushrooming use of community-based therapies and the problems they pose. Weisbrod draws attention to the need for, and challenges of formal analyses of the alternative therapeutic approaches. Thus, all five papers point up both important policy implications and researchable questions resulting from the changing technology of mental health care.

Underlying all of these papers is another common position--that transactions in the mental health area are susceptible to useful analysis by economists, that consumers and producers do behave in predictable fashions and that they can be expected to respond to incentives in predictable ways. This fundamental optimism in the tractability of decision-making processes in the mental health area need not, and in the eyes of the five authors, does not obscure the complexity of the issues: who are the "consumers" of mental health care, in the sense of the decision makers--the mentally ill, physicians, government planners, others? How well informed are consumers about the benefits and the costs of alternative therapies? To what extent do the privately-perceived benefits and costs measure the social benefits and costs? How responsive are providers and consumers to changing incentives in such forms as prices, coinsurance and deductibles? How is the behavior of the mental health care industry affected by the fact that much of its activity involves governments in central ways--State-run mental hospitals, community mental health clinics, Federal financing of Medicare, State financing of Medicaid? How is the behavior of the mental health care industry affected by the fact that private nonprofit organizations are of such prominence--in short-term hospitals and nursing homes, for example? When government providers, nonprofit organizations and proprietary firms co-exist, as they do in the nursing home and hospital industries, how does the process of adjustment to incentives differ from what we have come to expect for an ordinary profit-maximizing industry? How has the entire mental health care industry been affected by court decisions that have, for example, led to the discharge of tens of thousands of persons from long-term mental hospitals?

The papers in this volume have identified a fascinating variety of important issues with which public policymakers must wrestle. Sometimes the policy issues appear in the popular media to be essentially budgetary. Any attempt to control expenditures, however, is likely to flounder unless it reflects understanding of the subjects examined by the five papers presented here: the forces affecting the demand for mental health care by patients and their agents, the forces

affecting the supply of resources into the mental health care industry, the consequences of regulation of labor and capital in the industry, the problems of caring for the chronically mentally ill as they move increasingly out of hospitals and into community-based settings, and the need for benefit-cost analyses of alternative treatment approaches so as to recognize not only that expenditures vary with governmental control measures but so do program benefits.

BENEFIT-COST ANALYSIS IN THE MENTAL HEALTH AREA: ISSUES AND DIRECTIONS FOR RESEARCH

Burton A. Weisbrod
and
Mark Schlesinger

Introduction

Development of sound public policy in any program area requires two types of knowledge: an understanding of what consequences will follow from a particular course of action, and an evaluation of the desirability of those consequences. The first involves "positive" analysis--description of how the relevant economic, social, political, biological or other system functions. The second involves "normative analysis"--assessment of how favorable or unfavorable the effects of some intervention will be.

Benefit-cost analysis is a framework for the latter, normative analysis. It is useful for assessing the advantages and disadvantages of decisions made outside the private sector, outside the realm in which private profitability is an acceptable indicator of social desirability. The objectives of this paper are to identify important difficulties with applying the benefit-cost framework to evaluation of mental health programs, and by so doing, to improve future program evaluations and to identify issues for research. (Research issues will be indicated by underlining.)

This is not the place to review the literature and methodology of benefit-cost analysis. References at the end of this paper include a variety of books and articles on the subject, including introductory textbooks (Mishan, Stokey and Zeckhauser, Sugden and Williams), articles surveying the progress of benefit-cost analysis (Dorfman, Prest and Turvey), and articles of a general character (Cain and Hollister, Haveman and Weisbrod, Maass). The emphasis of the present paper is on identifying problems that, while in no case unique to evaluations in the mental health area, are of unusual prominence in that area.

One of the key problems in the mental health care market is the absence of agreement as to what constitutes "mental health" or an "improvement" in it. This fact has enormous implications for any health insurance coverage for mental health services. Here is a barely studied area that deserves research attention. It can be viewed within a benefit-cost analytic framework if we think of the "program" being evaluated not as a mental health delivery system but, rather, a finance system. National health insurance proposals of considerable variety have been proposed and discussed, but in this context there has been scant attention to the benefits and costs of alternative ways of dealing with mental health. Should "second opinions" be required before certain types of mental health

therapies are employed? Should coinsurance rates and deductibles distinguish between mental and "physical" health services? Should "covered" services be limited to M.D.'s (psychiatrists) or should psychologists, social workers and perhaps other providers' services be covered? Who should decide whom is a "psychologist," "social worker," etc.? As an increasing proportion of the population comes to see mental illness as an illness, as treatable, and as non-stigmatizing, the demand for mental health services will continue to grow. Research is needed on how the private market is likely to respond to growing demand, in what respects these responses are likely to be inefficient and inequitable, and what governmental intervention if any, is desirable.

What distinguishes mental health services is the virtually limitless potential for using treatment resources. Given the absence of a clear-cut operationally verifiable definition and associated measures of improvement, the introduction of unlimited Mental health services into a health insurance plan could lead to runaway expenditure increases--depending, of course, on the deductible and coinsurance rate structure. The danger is especially troublesome that lonely people--perhaps especially among the growing number of elderly persons--will increasingly utilize socially costly mental health services simply to obtain companionship, because its publicly-subsidized price is privately low. Thus, another research area involves the benefits and costs of alternative means for distinguishing between "needs" (or demands) for skilled mental health services and for unskilled helping services.

The Benefit-Cost Evaluation Framework

Proposals and, indeed, actual programs abound to prevent mental illness, to treat its victims and to care for those who cannot be treated. In every case it would be useful to know more about the desirable and undesirable characteristics of the program--that is, about its benefits and costs.

At an abstract level, the benefit-cost analytic problem is to discover whether the discounted present value of benefits from some program exceeds the discounted present value of its costs. This is not controversial. Difficulties surface rapidly, however, as one begins to specify: (a) what precise forms benefits and costs take, (b) how (or whether) to place monetary values on them, what time pattern they will take, and at what interest rate to discount future benefits and costs. This paper will not deal with the issue of what discount rate should be used since, although the choice of a rate can have a profound effect on the calculation of a program's net present value, the mental health area poses no unusual issues in this regard. (The reader who wishes to examine the discount rate issue may wish to examine the textbooks on benefit-cost analysis cited above, or the papers by Baumol or Feldstein.)

In a moment we will turn our attention to the problems and pitfalls on the benefit side of the ledger. First, however, there are some broad issues that encompass both the cost and benefit sides.

General Issues

The Counterfactual. Whatever the goals may be for some social program, the benefit-cost analyst must attempt to determine whether the degree of achievement of those goals would be affected by the particular program. That is, the analyst must compare what will happen if the program is undertaken with the "counterfactual"--what would happen if the program were not undertaken. It is often erroneous to assume that in the absence of the program certain things that the program would do would not otherwise be done. To illustrate: A program that involves treating mentally ill people in a residential institutional setting--e.g., a mental hospital--will involve "costs" of providing food. It is likely, however, that the persons involved would eat even if the hospitalization were terminated. Thus, insofar as both the hospital program and its alternative (that is, its counterfactual) involve the same food cost, there is no effect on that particular cost variable--that is, the program imposes no (additional) cost. This principle of including in costs or benefits only those consequences that would not occur but for the program under consideration is of fundamental importance in program evaluation. It is indispensable to any sound policy analysis that the research give attention to an explicit statement of the alternative with which the program being evaluated is being compared.

For the food cost example given above the issue is transparent and the correction easily made. The principle is no less sound for the evaluation of benefits, but it may be more difficult to apply. Assume that we are valuing a program against the counterfactual of no program, and that participants in the program show over time a clear improvement (however measured) in mental health. Even though the counterfactual is no organized program, we cannot value the benefits of a program relative to the patients' initial mental health status; that is, the relevant comparison is "with" vs "without" a particular intervention, not before vs. after that intervention. Even if the individuals had not participated in the particular program they might still have improved over time, either through natural means, or by seeking out aid from other sources. (For a more detailed discussion of this issue, see Levine, p. 53.)

Controlled Experiments. One valuable research approach that deals clearly with the specification of the counterfactual is the randomized control experimental design. When some patients are assigned to one treatment program, for example, and some to another, it is clear which counterfactual is being assumed; each program is being compared to the other. The randomized experimental design approach to identifying consequences of a program is not without its critics (see, for example, Kamper-Jørgensen), but the point to be underscored here is that this experimental design deals unambiguously with the specification of a counterfactual, comparison alternative.

Controlled experiments are not always efficient. They take time and use resources; thus their costs may or may not be exceeded by their benefits. Even when controlled experiments are efficient, however, they are not always--or even often--likely to be available

to a researcher-evaluator. When a treatment therapy has come to be accepted widely as effective even though no randomized clinical experiment has been performed--as in the case of the "Pap" smear test for cervical cancer--randomized trials become politically impossible in a liberal society; "effective" therapy cannot be withheld. (For an extended discussion of problems involved in controlled experimentation, see Zusman and Bisonette.)

Natural Experiments. When controlled trials are not possible, or are judged to be too costly, it may be possible to learn about benefits and costs by studying "similar" populations some members of which have received some particular treatment and others of which have not. Difficulties with such studies rest largely on the problems associated with selection bias; if the persons using a particular therapy have selected themselves for the treatment, or have been selected for it by experts (say, physicians) who deem it to be the best treatment for them, a comparison of persons who did and did not utilize that therapy would tend to produce upward-biased estimates of net benefits from that treatment approach.

An interesting example of how the success of a therapy can make it impossible to examine its effectiveness in a natural experimental setting is illustrated by a benefit-cost evaluation, currently in progress, which deals with an anti-ulcer drug. Since ulcers seem to be related to stress--a dimension of mental health--this study (Geweke and Weisbrod) is of substantive as well as methodological interest. The drug, Tagamet, was subjected to randomized clinical trials as part of the process of gaining FDA approval. That approval, however, was based on criteria of "safety" and "efficacy," not on a benefit-cost comparison of the drug with other anti-ulcer therapies. The counterfactual that is implicit in the FDA approval process is that the affected person would receive no treatment at all!

The potential for studying the benefits and costs of Tagamet as compared with any other therapy is quickly disappearing. The drug is proving to be so successful that its penetration rate--percentage of cases of duodenal ulcers in which it is being prescribed--is approaching 100 percent. Even though it will doubtless never reach that level, evaluation of its benefits and costs will increasingly run into problems of selectivity bias; ulcer patients who do not use the drug will be systematically different from those who do. Comparisons between users and nonusers (or users of other therapies such as surgery) are thus becoming less and less satisfactory as an approximation of a randomized assignment of ulcer patients among alternative therapies.

A second problem with natural experiments is that often more variables change than the experimenter-analyst wishes. For instance, a number of analyses have compared the effectiveness of a treatment regime used at one point in time to one prevailing at another. They have often ignored changes in other aspects of care: for instance, the increased use of antipsychotic drugs between the earlier and later periods (May 1970, p. 2063). In short, in a natural experiment

it is often difficult if not impossible to control for all relevant variables other than those being studied; as a result it is easy to mistake effects of the new therapy for effects of other variables that also influence mental health and that are correlated with usage of the new therapy. (This is the econometric "omitted variable" problem.)

In any event the point is that random assignment is not the only experimental design that is likely to bear fruit in economic evaluation work in the health--including mental health--area. Natural experiments can also be useful, although they, too, pose problems. An evaluator can compare benefits and costs for persons utilizing different therapies--at different points in time or at the same time--if careful examination of the patients' characteristics, especially those involving severity of the disease, and other variables affecting the degree of success of any treatment variable, discloses no substantial differences among the patient groups.

Multiple Therapies. In the preceding paragraph I implied that there might be a multiplicity of therapies available. Thus, a number of different counterfactuals need to be examined if a complete benefit-cost evaluation is to be done. Not that a single researcher can compare the benefits and costs of each actual or proposed mental health program with all other actual or proposed alternatives--but recognition of the multiple alternatives reminds us of the overall dimensions of the benefit-cost evaluation task.

A recent benefit-cost evaluation of a randomized experiment in treating the mentally ill illustrates the problems and challenges associated with recognition of multiple alternatives. The program being evaluated focused on treatment in the community rather than in a traditional hospital setting (Weisbrod). The experimental treatment approach involved bringing a wide variety of psychiatric and other helping services to the patient while he or she lived in a normal community environment. An elaborate, multi-dimensional benefit-cost comparison of the two treatment approaches was undertaken. However high the quality of the benefit-cost analysis might be, however, the fact remains that the hospital-based treatment approach was compared with only one counterfactual, the particular set of services that characterized the experimental program. Because that program involved changing many variables simultaneously, we could not learn how the program's benefits and costs would appear if they were examined against various other therapeutic approaches. To what extent were the greater benefits associated with the experimental program attributable to living conditions, to greater efforts to find jobs for the patients and to keep them at work, to providing support services at times of emotional stress, to assistance in establishing social contacts, and to the interactions among these variables as well as other treatment variables that differed between the experimental and control programs? Answering such questions is beyond the scope of any single study, but noting its relevance for policy analysis serves to heighten awareness of the nonroutine character of the benefit-cost analyst's task.

Disaggregating Programs. The counterfactual to one treatment program is not necessarily another way of treating all patients but it may be different treatments for various "types" of patients. As between two alternative treatment modes, one may be more beneficial and/or less costly than the other for older patients, for males, for persons with particular backgrounds, etc. In the Mendota experiment, for example, large systematic differences were found between the benefits (and the costs) of the two treatment modes, depending on the patients' illness diagnoses--schizophrenic, other psychotics, and persons with personality disorders. Patients are themselves inputs to the treatment process; it is not surprising, therefore, that applying the same resources to treating patients with varying diagnoses will produce varying benefits. Research that recognizes such diversity as part of the benefit-cost evaluation is greatly needed.

Time Patterns of Benefits and Costs. It was pointed out above that one dimension of a benefit-cost analysis is that of time. A mental health treatment program is likely to involve costs of resources that continue over an extended period of time, and benefits that are lagged and of uncertain duration. Certain complications result for benefit-cost analyses, and they call for additional research: (1) Whether a controlled or natural experimental design is employed, the problem remains of predicting flows of benefits and costs beyond the period of observation. It certainly cannot be assumed, for example, without further study that observed benefits would continue undiminished into the future if treatment were terminated or, for that matter, even if costs were incurred at a constant real level. (2) Even if the flows of benefits and costs over the "lifetime" of a project were known, it would be important for benefit-cost analysis to develop generalizations about the time patterns of the benefits and costs of "typical" mental health programs. Since the discounting process reflects a social preference for obtaining benefits sooner and for deferring costs, research would be useful that identifies conditions under which a program's benefits will be realized sooner and its costs incurred later.

Identifying the Counterfactual--A Conceptual Note. Any benefit-cost analysis is a comparison of two states of the world. Since at most one of those states can actually exist, it follows that the other must be hypothetical. To be relevant for informing policy-making, however, the hypothetical state that is assumed must be realistic, and in the mental health area that may pose subtle but critical problems. This is due to the fact that attitudes of persons toward themselves and each other can be affected by knowledge about illnesses. An illustration may be instructive.

Consider a program that is 100 percent effective in curing persons with some type of mental illness. Assume that the analyst knows everything worth knowing about the current conditions of the person with that illness. What does he or she assume, however, about the counterfactual situation if the treatment program is used? Specifically, is the assumption made that persons who are "cured" will be the same, in all relevant dimensions, as they would have been if

they never had been ill? Such an assumption, while plausible, is quite likely to be wrong, even if the cure left absolutely no effects of the illness from a medical point of view. Attitude of the former patient may have been affected by the illness and cure; and attitudes of others toward the former patient may also have been affected--e.g., the "stigmatizing" effect of having been mentally ill. Such attitudinal effects can cause the counterfactual to be very different for a successfully-treated person than for an otherwise identical person who had never been ill. 1/

The general point is that the "well-being" of a person is a function of variables reflecting: (1) objective circumstances of health state, productive potential, etc., and also (2) subjective attitudes that can affect the person's access to jobs, friends and outsiders. A successful medical treatment program may affect group 1 variables without affecting group 2 variables, or vice versa.

Real Benefits and Costs vs. Money Flows: Efficiency and Equity Considerations. Perhaps the easiest error to make in benefit-cost analyses is to identify benefits or costs with exchanges of money. There can be exchanges of money and yet be neither benefits nor costs from a social point of view. And there can be social benefits or costs without any flow of money. Throughout this paper we view benefit-cost analysis as being from a social perspective. The perspective of, say, a governmental budget officer who is concerned only with cash inflow and outflow would imply a different benefit-cost calculus--indeed, a number of them, depending on which level of government was involved. Sheezu and Atkinson (see in particular p. 244) detail just such a difference in perspective, comparing the relative costs of a community-based treatment program and a hospital-based program (in Texas in the early 1970s), as seen from different vantage points. They found that while the community-based program was relatively expensive for federal and local government, it was "a bargain" for state government.

The fact that transfers of money are neither a necessary nor sufficient condition for identifying or measuring social benefits and costs has important implications, some of which take on special importance in the mental health care area even though they are not unique to that area: (1) "Economic transfer payments" should be distinguished from real social benefits and costs, and should be excluded from the efficiency component of the benefit-cost analysis. Reflecting redistributions of income, transfers are relevant to a benefit-cost program evaluation only to the extent that the goals of the program include income redistributions. Many public programs in the health field--mental health and other--do appear to have goals that include redistribution of resources in favor of low income persons. The well-to-do may be assumed to be able to realize the need for mental health services, and to have the financial ability to obtain it; the poor, however, are often believed to be poorly-informed and financially "unable" to obtain certain "basic" services involving physical and mental health, and a social judgment has been made to increase their access to those services.

These observations suggest a number of notable researchable questions:

> How well informed are people about how they can benefit from various mental health services?
>
> How well informed are they about prices and availability of these services?
>
> Does availability of information regarding usefulness, price and availability differ systematically across income levels and social class?
>
> Is there "widespread" support for including some mental health services in a set of "basic social needs" that should be available and financially accessible to all?2/ If so, which mental health services, and in what quantities?

The general thrust of these research questions is toward building income distributional effects into benefit-cost evaluations of public programs in mental health. The Mendota controlled experiment (Weisbrod) recognized the relevance of distributional consequences of alternative treatment modes with respect to the cost burdens; so did the Texas study cited above (Sheehan and Atkinson). On the benefit side, however, there has been relatively little attention to the question of distributional effects. (See, however, Hollingshead and Redlich; and Edwards et al.) Research is needed:

> To what extent are publicly-provided or publicly-financed mental health services utilized unequally by persons with different family, occupational and socioeconomic class backgrounds?
>
> Do benefits from given mental health services vary systematically with income and social class?

The omission of the distributional dimension to benefit-cost evaluation is a common criticism by noneconomists of benefit-cost analysis, and in my judgment it is a valid criticism, especially in the area of health and social welfare. Even in the areas of highway construction and water resources, however, distributional consequences are generally relevant to overall project assessment, regardless of the stated "goals" of the program.3/

Comprehensiveness of Benefit-Cost Framework. Consider a prospective mental health program that is being compared with some alternative and that would bring costs and benefits in rather different forms than does the counterfactual program. If the benefit-cost framework is not broad enough to encompass all of these forms, one program may be estimated to be more beneficial or less costly than the other even though all that has happened is that benefits and costs changed forms, not overall magnitudes.

An illustration: One of the alleged costs of locating halfway houses for the mentally ill in residential communities (the type of facility currently being subsidized through a new HUD/HEW program) is that

the "normal" residents may be inconvenienced, made uncomfortable or, conceivably, physically abused, compared with keeping the patients in a hospital or in some other (counterfactual) location that is insulated from the community. Unless the benefit-cost analyst takes a broad, comprehensive perspective, he or she might count the reduced cost of hospitalization as a benefit (or, what is precisely equivalent, a cost reduction) resulting from the program, but might fail to count the burdens on other people as costs (negative benefits). Such errors would lead to biased results. The nature, direction and magnitude of the bias would, quite likely, depend on whether the benefits or costs accrue in money form, for the nonmonetary program consequences are more easily overlooked.

Even if the consequences are in money form, however, the likelihood of overlooking some form of benefit or cost exists. If the effect is indirect or is external to the perspective of the principle resource suppliers, it may be unnoticed. Thus, a study of the costs and benefits of treating the mentally ill in the "community" might overlook the fact that such a treatment mode may involve some hospitalization for acute episodes of mental illness; if the benefit-cost analyst does not obtain data on hospital utilization among mentally ill patients who normally live in the community, but does obtain such data for patients whose basic mode of treatment is in the hospital, an obvious bias will result.

Whenever a specific example of a potential error is given, as was done above, the danger to be avoided is clear. Nevertheless, this problem is very real and it is relatively simple to find analyses of mental health care which omit such important cost factors as: (1) the cost of nonprogram treatments; (2) the costs of time to the participant and; (3) the burdens imposed on the family of the participant (See Frank). Thus, the need is to develop a system that identifies as comprehensively as possible a list of potential forms of benefits or costs from the project under consideration, and then to seek quantitative measures of their magnitudes. Having such a list minimizes the probability that a difference in the forms of costs or benefits as between two programs will be mistakenly seen as a difference in total magnitudes.

Development of a comprehensive accounting framework will also minimize the likelihood of confusing a real benefit or cost with a pecuniary, distributional effect. With a narrower framework an analyst may discover that some persons are made worse off--that is, some private cost is incurred--but a more comprehensive accounting might disclose that such a cost is precisely offset (at least in money terms) by a benefit to other persons.

Measurability. Much of the criticism of benefit-cost analysis centers on charges that economists often measure what they can, and then disregard those conceptually-relevant variables that they are unable to measure. Insofar as our injunction to be comprehensive in identifying forms of benefits and costs is followed, the analyst will find it more difficult to disregard any forms of benefits or costs simply because of measurement problems. That is desirable; it is, in fact, the principal reason for desiring such a framework.

Measurement Should Be Distinguished from Valuation. Ideally, all forms of benefits and costs would be measured in some common unit for comparison. Money is such a unit, but its importance is no greater than that of any other arbitrary standard unit. While measurement of all benefits and costs in a commeasurable unit is desirable for determining whether the total B's or total C's are greater, that measurement will not be attainable in most real program analyses. Under typical circumstances, some forms of benefits and costs that have been identified as relevant to a comprehensive framework will not permit valuation in money units (at least not in a way deemed to be satisfactory by an economist); some, however, will be measurable in quantitative though nonmoney terms. Others will not be measurable in any quantitative units.

All three of these situations were illustrated in the Mendota study, where some variables were measured in value terms (hospital treatment costs), some in quantitative but not value terms (number of arrests, number of deaths), and some, not measured at all, were highlighted by a questionmark in the benefit-cost analysis summary table (e.g., burdens on neighbors and co-workers). In some respects the analyst should be most proud of the questionmarks; they point up the inevitable incompleteness of the analysis, and they direct attention to the specific variables with which the benefit-cost analyst has wrestled unsuccessfully.

In short, structuring the benefit-cost analysis is one step; employing the structure to measure and value the variables once identified, is another. An important example of a variable that is easy to identify, more difficult to measure, and still more difficult to value is the number of lives saved or lost by some program. While values of human life might be presented utilizing one or another valuation procedure (Jones-Lee, Bailey, Conley), an alternative would be simply to state the expected number of lives involved (and also, perhaps, the variance), thereby leaving it to some decisionmaker to provide, explicitly or implicitly, the value weight that will permit comparison with other variables. For still other forms of benefits or costs, there may be no available measure in pecuniary terms that is at all satisfactory.

This is not to say that any variable is, in principle, immeasurable. For some variables, however, either the conceptual foundation for measurement may be too weak to justify our presenting a pecuniary measure, or the costs of implementing the measure may be too high. For the same reasons, some variables will not be measured even in quantitative nonpecuniary terms; a qualitative (algebraic sign) indicator will sometimes be the optimal measure, e.g., for the burdens on community members when the mentally ill live in residential areas. Finally, as noted earlier, for some variables, the best that can be done will be no explicit measurement at all; a blank space--or better yet, a questionmark--in a tabulation of benefits and costs is optimal.

In short an optimal benefit-cost analysis--by contrast with an ideal one--will measure variables with varying degrees of perfection. This

implies that benefit-cost analysis cannot be the sole basis for intelligent decisionmaking.

When we turn to actual measurement, the inevitable fact is that the available data will rarely, if ever, meet precisely the benefit-cost analyst's requirements. Thus:

--although it is marginal benefits and costs that are relevant conceptually in any benefit-cost analysis, the most readily available data will almost certainly be averages. Moreover,

--averages derived from accounting records are often biased estimates of true social averages.

Both of these generalizations, and the dangers they imply, hold for the data that have been used in the Mendota experiment as well as in other empirical evaluations of mental health programs. The use of averages derived from accounting records is "justified" largely by their relatively low-cost availability, but easy availability is only one relevant consideration for choosing data. Study is needed of the likely direction and magnitude of biases that result from the use of unadjusted accounting data, as well as the prospects for obtaining improved data.

Accounting data in the mental health field are generally problematic because: (1) When publicly-owned land and buildings are employed--as they are when, say, state mental hospitals are involved the opportunity cost of publicly-owned land is normally disregarded, and depreciation of publicly-owned buildings (e.g., State mental hospitals) is unduly low because it is based on historic cost, an increasingly unsatisfactory and downward-biased measure of replacement costs during inflationary times.

These limitations of accounting data for benefit-cost analyses can be of major consequence. In the Mendota experiment, for example, adjustment of the State of Wisconsin's cost accounting data for the State Mental Hospital to account for the land and depreciation costs led to an increase of some 40 percent.

(2) When mental health programs are supplied by the public or private nonprofit sectors, a substantial share of the inputs may be costless to the institution but not to society--e.g., donations of goods and services, especially volunteer labor. According to the 1976 Survey of Institutionalized Persons, the ratio of volunteer to full-time paid employees is 3:4 for psychiatric hospitals, for example, and 6:5 for institutions for the mentally handicapped. Research would be useful on the role and valuation (in opportunity cost terms) of volunteer labor in mental health programs, and the substitutability and complementarity of such labor for other resource inputs.

Limitations of Benefit-Cost Analysis. Whatever the precise character of the proposed program, its benefit-cost analysis will require resources (budgets) that are limited and that constrain the analysis. In the Mendota experiment, budget constraints limited the

scope of the experiment in two ways: (1) in the duration of the experiment, and (2) in the opportunity to vary and control different combinations of variables. In any realistic (nonexperimental) application of the community-based program, patients would not likely be restricted to 14 months of participation as they were in the experiment; thus the experimental design permitted only conjecture regarding whether the E-program's success or its costs per patient year would be different if its duration were longer (or, for that matter, shorter).

The E treatment approach involved not one but many simultaneous differences from the traditional C approach: (a) patients were not hospitalized; (b) they lived and worked in the community; (c) people with whom patients were likely to come in contact were asked not to treat them differently from others because they were mental patients; (d) efforts were made by the E-group staff to help patients find and retain jobs; (e) E-group staff helped patients to budget their money; (f) E-group staff accompanied patients to social activities; and (g) E-group staff assisted patients in a variety of other ways that were not available to C-group patients.

As a result of the fact that so many treatment variables were being altered simultaneously--a situation that is likely to be present in all studies--any comparison of costs or benefits of the E and C programs could show only the overall net effect of altering the entire set of variables. As a theoretic ideal (abstracting from the costs of running multiple experiments), it would be desirable to run a set of experiments in which one treatment variable at a time was changed (and in various degrees), and additional sets of experiments in which each possible combination of variables was changed (and in various degrees). Only then would we be able to judge the effectiveness of particular inputs in particular combinations and to answer such questions as: how important were the E-program's efforts to augment patients' earnings, as contrasted, say, with the program's efforts to help patients with landlord, cooking, or social difficulties? Would better results (a larger excess of benefits over costs) have accompanied a reallocation of resources between these two types of efforts, or perhaps even the elimination of one or the other of these efforts. A single experiment can only begin to provide data about the total production function for treating the mentally ill.

This conclusion leads to a generalization about all benefit-cost analyses: benefit-cost analyses are inevitably incomplete in the sense that they compare only two (or, at most, a few) states of the world--typically with and without some particular project. Since a project is of a particular form, the analysis generally says little or nothing about the benefits and costs of any alternate form, duration, size, location, etc. Occasionally, more than two alternative states are evaluated (e.g., when the analysis of a possible dam project examines benefits and costs of various sizes for the dam). The result, in any case, is examination of only a small portion of the total production function for a particular type of output. Whatever the findings, the possibility remains that some

other resource combination would be more efficient than the one(s) evaluated.

A final general issue applicable to all benefit-cost assessments is the usefulness of market prices in the valuation process. When prices of resources are determined in noncompetitive markets, those prices do not reflect the value of the resources in alternative uses. Thus, valuation of the costs of mental health care based on market prices will be sensitive to the degree of competitiveness of the markets involved. In addition, the market for mental health care often involves a substantial nonproprietary component. Seventy-six percent of psychiatric hospitals, for instance, are nonprofit, while 15 percent are operated by government. Nonprofit (38 percent) and public (16 percent) ownership also account for substantial numbers of homes for the mentally handicapped. (Bureau of the Census, Survey of Institutionalized Persons). At this point we have no well-defined theory about the manner in which nonproprietary ownership affects price setting, but some authors have hypothesized that this too may cause prices to diverge from marginal social value (see, for example, James).

Even when actual and optimal prices diverge, however, the significance depends on the variation across the alternative programs under consideration. If, for example, benefits and costs for two programs were being compared and these programs utilized inputs for which the divergences were essentially the same, then the relative efficiency of the two would not be affected by the distortions of prices. In general, however, this cannot be properly assumed; the analyst needs to examine and make judgments about the degree of competitiveness of the markets (both for inputs and outputs).

Regardless of the degree or character of competition, however, prices will, to some extent, reflect the purchasers' income (including wealth). Thus, any valuation of the benefits of mental health care based on willingness-to-pay as reflected by market prices will be sensitive to the income distribution. Though this criticism applies to all benefit-cost analyses, it may be particularly relevant to mental health care for it is precisely because society believes that many mentally ill are too poor to purchase health care that it established the social programs in this area (see Frank). As a result, the normative significance that should be attached to prices of inputs to, and outputs from mental health care depends on the competitiveness of the markets and satisfaction with the distribution of income.

Benefits

Improving the mental health of patients is ostensibly the primary goal of any current treatment program. Such improvements may well increase the productivity and stability of patients as consumers and may bring external benefits but to many people these results are secondary to the benefits of patients' feeling better, i.e., more satisfied with life.

These effects are difficult to value in monetary terms, even conceptually. For ordinary goods and services, a patient's behavior might reveal his or her willingness to pay. As regards the mentally ill,

however, it is not clear either what normative meaning should be attached to the person's stated willingness to pay for better health or what kinds of inferences about that willingness should be made from any observed behavior.

Measuring benefits of mental health programs is a challenging, critical problem. is it any different, one might ask, from the problem of measuring benefits from any other good or service? Yes, I believe--and no! I will discuss the matter briefly, but it is surely a question deserving of more research and debate.

At one level of analysis we can think of mental health services as one class among a large number of goods and services available to consumers. Knowing their own preferences, consumers observe the prices of all the available goods and services and, given their incomes and wealth endowments, they choose how much to buy of each commodity, including mental health services.

One assumption embedded in the standard scenario, above, is that consumers can judge the quality of--i.e., the benefits from--each good and service. In the case of many health services and especiall mental health services, that assumption is unjustified. First, people often are most in "need" of mental health services when they are least capable of making rational judgments. That is, even if a rational consumer would treat mental health services just like another commodity, a "seriously" mentally ill person would not generally be regarded as "rational." His or her demand--willingness and ability to pay--for mental health services would differ, given the state of mental health, depending upon whether he or she was or was not capable of making rational decisions.

Second, even a fully rational buyer of mental health services is often poorly informed about quality. One reason is related to our earlier discussion of the counterfactual. Given the remarkable ability of the human body and mind to correct themselves, it is not generally correct to assume that a mentally ill consumer would improve only if mental health services were obtained. Conditions could improve or deteriorate.

Third, and perhaps most important, there is presently little consensus as to what "mental health" means. One implication is that a consumer who is receiving some mental health services is in a position not merely of being poorly informed but of being unequally ("asymmetrically") informed vis-á-vis the health service provider. The provider, acting as an agent for the patient, gives advice as to whether the patient should obtain or continue treatment. At the same time, the provider could be in a conflict-of-interest position, for he or she could also act as a principal, showing consideration for his or her own income. The efficiency and equity of the unregulated private market in mental health services is deserving of research, with particular attention to the consequences of asymmetric information, "irrational" behavior, and the related agent-principal relationships.

It is clear that for a host of reasons it is important to develop measures of the degree of "success" or "failure" of mental health services. I suggest that success be defined in terms of benefits--that is, success consists of achieving benefits. Relating success to benefits is notable. The reason is that "success" might be thought of in medical terms alone, wheras "benefits" suggests a wider range of dimensions.

In the Mendota study, for example, a number of dimensions or criteria were used for defining benefits. These included: (1) measures with an economic orientation--e.g., earning power, employment stability, and evidence of financial planning (saving income and purchasing insurance); (2) clinical symptomatology measures developed by psychiatrists--e.g., motor agitation, depressed mood, paranoid behavior; and (3) mental health status as judged by patients--i.e., responses to the question, "How satisfied are you with life--friends, living situation, leisure activities?" with answers on a 5-point scale ranging from 1, "not at all satisfied," to 5, "very much satisfied."

The potential for developing better measures seems to exist. (See Panzetta, for example; he argues, however, that cost-benefit analysis is best applied to delivery systems rather than psychotherapy.) Some collaborative efforts between medical providers and economists is called for, since what seems desirable is the development of measures that encompass both perspectives on what constitutes improvements in mental health status. If, as seems likely, multi-dimensional scales are appropriate, cross-disciplinary efforts will be required in order to move toward a comprehensive index that will, in turn, contribute to evaluating benefits in the benefit-cost framework.

Benefit-Cost Analysis vs. Cost-Effectiveness Analyses. The fact that outputs and benefits of mental health programs are so difficult to define and measure has led to a search for evaluative approaches that do not require measurement of benefits. "Cost-effectiveness" analysis has emerged.

A recent World Health Organization report defined cross-effectiveness analysis as "...similar to CBA (cross-benefit analysis) except that benefit, instead of being expressed in monetary terms, is expressed in results achieved, e.g., number of lives saved or number of days free from absence." (World Health Organization, p. 9. See also the discussion from F. Kamper-Jørgensen, in that volume, pages 31-43, on the distinction between cost-benefit and cost-effectiveness analysis.

Thus, cost-effectiveness analysis involves comparison of costs only--costs of alternative means for achieving a given (exogenously determined) level of outputs. The cost-effectiveness analyst leaves to other people--"policy makers"-- the determination of what that level of output should be; the economic choice problem for the analyst is simply to find the lowest cost means of producing that output. A cost-effectiveness analysis can be undertaken only when the technical experts understand enough about the production function to be able to identify the existence of two or more input combinations that can produce the same output. Without an agreed-upon measure of output, however, that is impossible! Analysis is not an available research option. Its use can be expected to yield no evidence on the comparative costs of alternative programs for achieving <u>the same</u> output, but the costs of achieving <u>different</u>--though poorly understood--outputs.

What is technically feasible, in short, is to compare the costs of alternative approaches to, say, the delivery of an hour of mental health services or the costs of alternative ways to find employment for the mentally ill, but there is no reason to expect that the same outputs (benefits) would result from the alternative mechanisms. In fact, that is what the Mendota experiment found--both benefits and costs differed across the two programs.

The search for a way to sidestep the difficult tasks of defining and measuring benefits of improved mental health is illusory. Comparing only the costs of programs with unmeasured benefits that are probably unequal is not instructive for policymaking. 4/ At the very least, pains should be taken to identify differences in benefits when the analyst is comparing costs of obtaining seemingly similar benefits via different programs. The point is that two programs that produce, for example, the same number of lives saved or days free from work-absence are not generally similar in other dimensions; the ages of the persons affected may differ or their post-program health status may differ (i.e., one program may "save" lives and leave the persons in good health, while another program leaves them injured and debilitated).

Aggregate Social Benefit Analysis. Just as one might focus attention on the costs of achieving unspecified outputs, so, analogously, one might focus on the benefits of some unspecified inputs. This is what was done in the earliest quantitative study by an economist in the mental health area. The author (Fein) estimated the aggregate direct and indirect social costs of mental illness to the United States in a single year. The same approach has also been utilized in other disease contexts (Weisbrod, 1961, and Cooper and Rice).

In effect this approach estimates the benefits of some hypothetical program that totally eliminated mental illness. Since no such program exists in even an approximate form, and therefore no cost estimate can be developed, it is not clear that such aggregate benefit calculations are of value for public policy-making.

Perhaps, however, it is technically feasible to undertake a program or programs that would cut the prevalence of mental illness by X percent (X less than 100). If it could be assumed correctly that the aggregate social costs of mental illness would also drop by approximately X percent (or by some known function of X), then the aggregate figure would indeed be a useful basis for estimating the benefits from various mental health programs. Such an assumption does not seem warranted at the current state of knowledge. At the same time, there has been little or no research attempting to identify general functional relationships between reductions in mental illness prevalence or incidence and magnitudes of reduced social costs.

Concluding Remarks

Some form of benefit-cost analysis underlies every public action. The analysis may or may not be formal. It may or may not be quantitative.

It may or may not distinguish between efficiency and equity dimensions. It may or may not measure up to economists' standards. But in one fashion or another a judgment must be reached regarding whether the advantages of the program outweigh the disadvantages.

National expenditures on health are large and growing more rapidly than GNP. Expenditures on mental health are similar growing rapidly and they have explosive potential. Careful scrutiny of the benefits and costs of existing and proposed mental health programs is thus greatly needed as a guide to intelligent decisionmaking. Yet the potential for benefit-cost analysis should not be exaggerated. It can inform; it cannot substitute for judgment.

FOOTNOTES

1/ Klarman (p. 330) refers to his study of the stigma effect of having been treated for syphilis.

2/ For a recent statement of support for the basic needs view of social policy as compared with the generalized income redistribution view, see Harberger, 1978.

3/ Recognition of distributional effects of public programs suggests the possibility that some persons will actually be harmed by projects intended only to be helpful. In such cases compensation may be desirable, both on equity grounds and to facilitate adoption of efficient programs. (See Cordes and Weisbrod 1979a, 1979b.)

4/ Nonetheless, cost-effectiveness studies are fairly common in the analysis of mental health care. (See, for example, Cassell 1972; May 1970; and May 1971).

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FINANCING AND DEMAND FOR MENTAL HEALTH SERVICES

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Introduction

The brief history of collective financing of mental health services, through private insurance plans and public budgets, has been turbulent. Public policy proceeds without consensus on the way mental health services should be paid for and who should be paid to provide them. Within the next few years decisions about the terms of inclusion of mental health services in national health insurance are likely to be made nevertheless, setting the shape of the mental health service system for years to come.

In the past two decades, users of mental health services have become more like consumers of mental health care. Understanding demand behavior has become a critical element in formulation of policy. Research into demand behavior in mental health is at an early stage. Some conclusions can be made with confidence. Demand is not "unlimited". Demand for outpatient mental health services is, however, more responsive to price than demand for general health services. Other conclusions are more tentative. There seems to be a tendency for demand for mental health services within an insured population to grow over time even as coverage remains stable. Public financing for mental health services, including services of private psychiatrists, would not redistribute income away from the poor. Too little is known about some other issues to even offer a tentative conclusion. Most importantly, we do not know why people choose one type and mode of care over another, and what role financing might play in these choices.

The Increasing Importance of "Consumer Behavior" in Mental Health. It may not be obvious to anyone but the most dedicated economist that the theory of consumer behavior has anything to do with mental health services. A skeptic might make three points. First, there is very little choice to be made about treating mental illness. It is an illness, and as with any illness, there is generally a preferred method of treatment. Second, what choice there is about form and extent of treatment is made by mental health professionals, not patients. Third (regarding normative demand theory), it is wrong to think that the mentally ill have a reasonable understanding of their own condition and of the possibilities for treatment. It is also wrong to think that the mentally disturbed are generally capable of rational decisions. This ignorance and irrationality make it impossible to interpret "consumer demand" for mental health services as saying anything about the benefits of these services to patients. I will make a few comments about each of these points.

Demand for services to repair a broken arm is not very interesting. Virtually anyone who breaks an arm demands one unit of the relatively homogenous service "broken arm repair" over a very broad (and certainly including the relevant) range of prices. Most health services, though, do not follow the broken arm model of disease and treatment, and treatment of mental disorders probably follows the broken arm model least of all. Sociologists study stages in the decision to seek treatment, from the recognition of a problem, to consultation with personal advisors, to the actual decision to seek professional help (e.g., McKinlay 1973). This process occurs quickly and with fairly uniform results in the case of a broken arm. For mental illness, the process is drawn out and may lead to different results. At many points there is room for intervention of social, economic and personal factors to influence the decision to seek professional care. Economic factors are among the most interesting for policy. It is hard to change the outcome of this decision process by changing someone's view of mental illness or the perception of a person's problem by his advisors. It is much easier to change the final outcome by changing the price someone must pay for service or perhaps by changing the location and type of service available.

A brief comparison of the "need" for mental health services, as assessed by public health officials, with the services delivered, makes clear that there is not a simple, direct connection between the existence of disease and the use of services. Compiling the results of 11 studies, a Task Panel of the President's Commission on Mental Health (PCMH) reports that, "only about one-fourth of those suffering from a clinically significant disorder have been in treatment" (PCMH, 1978, I, p. 16). (Persons with most severe diagnoses, such as schizophrenia are almost all in treatment.) Reviewing the epidemiological literature of the past 25 years, Regier, Goldberg and Taube (1978) estimate that about 10 percent of the U.S. population is mentally ill at any one time and that about 15 percent of the population is mentally ill over the course of a year. In 1975, only about 7 million persons, or about 3 percent of the population, were treated in what Regier, Goldberg and Taube call the "specialized mental health sector." If the 15 percent incidence figure is correct, this means that most mentally ill either go untreated or are treated by someone other than a mental health professional. That many judged needy go unserved is seen to be more serious when it is recognized that some part of the 3 percent of the U.S. who do receive services would not be judged to be mentally ill or at least have a need of a considerably lower order. Mental illness is not at all like a broken arm.

The skeptic's second point, that most decisions about treatment are made by professionals, would have been a telling argument in 1955, but it applies with much less force today. Historically, most patients were admitted to institutions involuntary and decisions for treatment were made in an authoritarian manner by professionals in the institutions. Within this system of resource allocation, there was little scope for "consumer demand." Mental health care in the U.S. has been re-oriented in the past 25 years, toward providing

care on an outpatient basis and away from providing care on an inpatient basis. In outpatient settings, patients' decisions about whether to seek treatment, where to seek treatment, and whether to continue with treatment are an important force in the allocation of mental health services. Between 1955 and 1975, the relative importance of inpatient and outpatient services at mental health facilities roughly reversed. In 1955, over three-quarters of all care episodes at mental health facilities occurred on an inpatient basis. By 1975, three-quarters of all episodes were on an outpatient basis (see table 1). Excluded from table 1 are settings outside the net of NIMH surveys of mental health facilities: mental health professionals in private practice and the general medical sector. Adding just the approximately 1.5 million persons seen each year by psychiatrists and psychologists in private practice makes the total patients seen on an outpatient basis in the mental health sector well over 80 percent of the total. Adding in the millions seen in the general medical sector, largely in outpatient settings, would make this percentage even higher.

The skeptic's last point has to do with whether those using mental health services ought to be regarded as being capable of making decisions in their own best interest. No doubt the mentally ill often make mistakes out of ignorance or irrationality. But at the same time it would be easy to overstate this objection to the applicability of standard consumer demand theory. Mental health professionals and the rest of society are increasingly willing to accept patients', including mental patients', judgment about what is best for themselves. The legal doctrine of "informed consent" dictates that all patients are entitled to a description of the consequences of the possibilities for treatment including doing nothing, and are entitled, barring exceptional circumstances, to chose among these possibilities in their own interest. Rights accorded patients under the doctrine of informed consent are more and more being applied to mental patients. The circumstances under which involuntary treatment of all kinds can be imposed on mental patients are becoming more restrictive. This signifies society's willingness to accept "consumer sovereignty" in mental health.

The provider's influence in outpatient settings is, of course, far from negligible. A patient may initiate care, say with a psychiatrist, but then the training and theoretical inclination of the psychiatrist may play a dominant role in setting the form and extent of treatment. This, by itself, however, does not cancel the applicability of demand theory. It does make it more difficult to interpret exactly who is "demanding" services. Experience from the general health sector is that whoever is ultimately making the decisions, variables like price and insurance coverage affect choices in much the way standard demand theory would predict. The importance of provider influence also makes it crucial to study why patients chose the type of provider they do. The most significant choice a patient makes may be from whom to seek care.

A Brief History of Financing of Mental Health Services. Insurance coverage for medical treatment within hospitals first became available

TABLE 1

Distribution of Persons with Mental Disorder by Type of Treatment Setting. U.S., 1975*

Setting	Persons	Percent of Total**
Specialized Mental Health Sector		
State and County Mental Hospitals	789,000	
V.A. - Psychiatric Units of General and Neuropsychiatric Hospitals	351,000	
Private Mental Hospitals and Residential Treatment Centers	233,000	
Non-Federal General Hospitals With Psychiatric Units	927,000	
Community Mental Health Centers	1,627,000	
Freestanding Outpatient Multi-Service Clinics	1,763,000	
Halfway Houses for the Mentally Ill	7,000	
College Campus Mental Health Clinics	131,000	
Office-Based Private Practice Psychiatrists	854,000	
Private Practice Psychologists	425,000	
Subtotal	7,107,000	
Unduplicated Sector Total	6,698,000	26.7
General Hospital Inpatient/Nursing Home Sector		
Nonpsychiatric Hospitals	893,000	
Nursing Homes	207,000	
Unduplicated Sector Total	1,100,000	4.4
Primary Care/Outpatient Medical Sector		
Office-Based Nonpsychiatric Physicians	13,047,000	
Neighborhood Health Centers	314,000	

(table continued)

Distribution of Persons with Mental Disorder
by Type of Treatment Setting. U.S., 1975*

Setting	Persons	Percent of Total**
Primary Care/Outpatient Medical Sector (continued)		
Industrial Health Facilities	314,000	
Health Department Clinics Outpatient	941,000	
General Hospital and Emergency Rooms	6,391,000	
Subtotal	21,007,000	
Unduplicated Sector Total	19,218,000	76.6
Unduplicated Total	25,094,000	100.0

* Source: Regier, Goldberg and Taube (1978), Table I.

** Sector percents total to more than 100 because some patients are seen in more than one sector.

in the U.S. during the 1930's, years before coverage for outpatient care. During the Depression, hospitals' desire for a secure source of payment and patients' desire for insurance against large medical expense combined to set the stage for the birth and growth of Blue Cross. Blue Cross was a creature of the private general hospitals, few of which had psychiatric beds. Hospitalization for mental illness took place primarily in State mental hospitals, or private mental hospitals, neither of which were part of the early Blue Cross Plans. Treatment in hospitals for mental illness largely fell outside of the early insurance coverage.

Control of nominal industrial wages during the Second World War diverted pressure for wage hikes into fringe benefits, including hospital insurance. By the end of World War II, 32 million Americans were covered for hospital expenses. Blue Cross and commercial insurance companies continued to expand their coverage so that today over 90 percent of the total population has some insurance for hospital expense. Coverage for hospitalization for mental illness took part in this growth, with commercial insurance companies offering coverage in all settings and for all illness, and Blue Cross plans gradually expanding their coverage to include treatment of mental illness. Although by the mid-seventies most Americans, when covered for hospital expenses, had equal coverage for mental and physical conditions, some insurance plans continued to feature lower benefits for treatment of mental illness. In a survey of 148 employee health benefit plans conducted by the Bureau of Labor Statistics, 68 percent of the plans offered equal care for mental and physical conditions, while 32 percent offered less care for mental conditions (Reed 1975). The BLS survey did not identify Blue Cross and commercial insurance plans, but a separate survey of Blue Cross shows that Blue Cross hospital insurance plans discriminated against treatment for mental illness more frequently than did commercial insurance plans. In Reed's (1975) survey of 74 Blue Cross plans in 1974, 52 plans (70 percent) provided less coverage for mental illness in a general hospital than for physical illness under their most widely held contract. Twenty-two plans (30 percent) provided no coverage at all for treatment in private mental hospitals, and 40 plans (54 percent) provided no coverage for treatment in public mental hospitals.

There was no significant insurance coverage for medical treatment of any kind outside of the hospital before the early 1950's, when commercial insurers began to offer "major medical" policies, primarily through group insurance plans. Blue Cross and Blue Shield imitated, and the growth of this insurance was also very rapid.

Initially, during the early 1950's, under the major medical policies of commercial insurance companies, outpatient treatment for mental illness was covered on the same basis as other illness. Generally after some deductible, the insurer paid 75-80 percent of the charges. Commercial insurers' early experience with this coverage, however, led them to quickly draw back from equal coverage for outpatient treatment for mental and physical illness and to institute discriminatory coverage for outpatient mental health services. Psychoanalysis was the

predominant form of psychotherapy, and as it still does today, psychoanalysis presented special difficulties to insurers. With respect to psychoanalysis, "The companies became concerned over the appropriateness and equity of paying out significant portions of total benefit payments to a very few individuals who were not disabled and were continuing to earn or to carry on their usual functions" (Reed, Myers and Scheidemandel 1972).

Most private and public insurance for outpatient psychiatric care reflects this early experience. In a survey of group health insurance policies issued by commercial insurance companies in 1973, the Health Insurance Institute (1977) reports that although 96 percent of persons insured by the companies surveyed (representing 55 percent of the total insurance premium volume) were covered for mental and nervous disorders, maximum benefits were usually limited to $500 per year and $10,000 lifetime, and the coinsurance rate was usually 50 percent. In Reed's (1975) survey of Blue Cross/Blue Shield outpatient coverage in 1973, of the 11 plans or pairs of plans reporting coverage, 7 paid 50 percent or less for outpatient psychiatric treatment as opposed to 80 percent for other conditions (and most of these had other restrictions on visits), 3 paid 80 percent of charges, the same as for other conditions, and one plan offered a variety of packages with coinsurance ranging from 50-80 percent with and without limits.

The pattern of broad, equal coverage, bad experience, and retraction of benefits, has been repeated since the 50's. Notable is the recent experience of Aetna with Federal employees. Aetna insurance, one option for health benefits for Federal employees, was cited by many as a model for national health insurance coverage for mental illness. Benefits were generous and equal for mental and physical illness. After a few years of experience with the coverage, however, Aetna found it necessary to restrict psychiatric outpatient coverage to 20 visits per year in 1975. Some of the complaints about improper utilization echo the story of the early 1950's with major medical coverage (Aetna 1976). Blue Cross and Blue Shield Plans in Massachusetts and California are following this lead and tightening coverage for mental health care (Herrington 1979). In this latest round, reaction of insurers to unexpectedly heavy use of mental health services is less severe than in the early 1950's. In spite of publicized cutbacks in coverage, more and more people are gaining coverage for outpatient mental health care. Today, roughly 40-60 percent of the population has some coverage for outpatient mental health services, but few have benefits that match coverage for physical illness.[1]

Federal programs have helped selected groups in the population pay for mental health care. Since 1965, Medicare and Medicaid have insured the elderly and the poor for some treatment for mental illness. Medicare, providing for patients over 65 years of age, limits coverage for mental illness for both treatment in and out of hospitals in similar fashion to the limits written in on most private insurance plans. Under Part A, coverage in a general hospital is the same for psychiatric as for other illness, but coverage for treatment in a psychiatric hospital is limited to 190 days in a life time.

Under Optional Part B, coverage by a psychiatrist for treatment on an outpatient basis is limited to the lesser of 50 percent of charges or $250 per year. State Medicaid programs, serving the poor, may not make payment contingent on diagnosis; however, states may place limits on the amount of care covered, such as the number of visits to physicians, and thereby limit psychiatric coverage. The Federal government also provides care for veterans at VA hospitals and insurance coverage for dependents and retired personnel of the armed forces when they must obtain services in the civilian community through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

Some Current Issues. Imminence of national health insurance (NHI) forces consideration of how a financing system for mental health services should be set up. How extensive should benefits for mental health services be? Should all psychotherapies be covered? Should benefits be equal to benefits for other medical services? Who should be eligible for payment? Just physicians? Psychologists? Social workers? Independently of physicians? What means should be used to control "over utilization?" Deductibles/coinsurance/limits? Professional peer review? Regulation? Market forces? At the moment the range of answers proposed to these questions is very limited. All formally proposed NHI plans limit mental health benefits well below general health benefits, rely primarily on deductibles and limits to control cost, and restrict direct payment to physicians, (see table 2). This commonality in approach among these proposals should not be mistaken as a consensus. The issues of how much should be covered and who should be paid to provide mental health services are still to be worked out.

Among the important considerations in choice of a system of paying for mental health care are the consequences for cost for the distribution of services. These two issues will be the concern of this paper. Section 2 deals with insurance and utilization, Section 3 with insurance and distribution. Section 4 summarizes our conclusions and indicates directions for research. Our analysis will emphasize positive rather than normative economics. The question of what to do about NHI for mental health involves issues of utilization, cost and distribution, and others which we cannot deal with here.[2/] Our focus will be on what we know about certain consequences of financing rather than on answering questions of policy, which involve broader concerns. Another limitation is imposed by the necessity of treating an extremely complex delivery system in a paper-length discussion. Community Mental Health Centers, State hospitals, psychiatrists in private practice, general practitioners providing mental health care, and all the other parts of the mental health system each involve some unique issues in financing, and are each worthy of independent, full discussion.

Insurance and Utilization of Services

A Work Group at ADAMHA (1979) on NHI cost estimates has recently developed predictions on the cost of a comprehensive NHI plan for

TABLE 2

Health and Mental Health Benefits in National Health Insurance Proposals

Proposal	Health Benefits	Mental Health Benefits
Carter Administration	After $2500 deductible, unlimited inpatient and unlimited physician and other ambulatory services.	After $2500 deductible (for all services), limited to 20 days of inpatient care, and $1000 ambulatory services.
Senator Kennedy's "Health Care for All Americans"	Full coverage for physicians and hospital services.	Hospital services: limited to 45 consecutive days of active treatment beginning with first day of hospitalization 60 days after last such period. Physician services: 20 visits.
Senate Bill 350, 351 (Long, Ribicoff, et. al. Long, Talmadge, et. al.)	Institutional benefits after 60 days in one year; medical expenses after $2000. Coverage for medicare expenses.	Medicare coverage for psychiatric inpatient limited to 190 days lifetime, outpatient to 50 percent of charges and $250 per year.
Senate Bill 760 (Long)	Same as above.	Same as above.
Senate Bill 748 (Dole, Domenici, Danforth)	After $5000 deductible (or 15 percent of income) full coverage for expenses covered by Medicare.	Same as above.

mental health services by type of setting. Predictions are reported in table 3. According to the Work Group, overall costs for mental health services would rise by 37 percent in 1980 if a NHI program were in place. Insurance coverage was predicted to have the least impact on utilization and costs in inpatient settings, more in organized outpatient settings, and most impact on utilization and cost of services provided from private office practice. The Work Group estimates were the consensus of a set of experts, and no justification was given for the predicted increases. The greater predicted increases in the outpatient sectors and especially in private office practice probably reflected the fact that NHI would add more net coverage to outpatient settings, and a judgment by the Work Group that outpatient utilization would be more sensitive to insurance than inpatient utilization.

It is easy to criticize the Work Group's estimates as being ad hoc. In most cases cost increases were not broken down between increases in services and increases in cost per unit of service. The Work Group itself recognized these limitations and hoped its report would stimulate more justifiable estimates. The purpose of reporting these estimates here is to first give the reader some background on the settings for care and their importance, and second to underline the statement that the experts do not know very much about how insurance for mental health services would effect cost and utilization. The estimate that <u>all</u> organized outpatient care settings (ranging from HMO's to CMHC's to departments of VA hospitals) would have costs go up by 50 percent under NHI is a tacit admission that we do not know enough about the effects of insurance to make any meaningful distinction about the likely impacts on these quite different settings.

Most empirical work on the effects of insurance on demand and cost has been study of the aggregate behavior of large insured populations. Data from third-party payors are relatively easy to collect, and the methodology of these studies is accessible to researchers with a wide variety of backgrounds. Utilization statistics are collected on a large population within an insurance pool. Depending on the detail of the insurer's claim data, the average utilization by type of person covered and by type of service is reported. Researchers seek to generalize from the experience of the studied population with a certain coverage to financing policy for wider population groups. Special interest is in lessons for NHI policy. The primary problem with these studies is that since so many factors--population characteristics, coverage, and supply characteristics--come together to produce the observed outcomes, it is very difficult to know what would happen if any one circumstance changed. Unless the population, coverage and supply situation is a very faithful model of a national policy alternative, generalization is hazardous.

We cannot discuss all the studies of this type, but will select two to show the potential and problems with this type of research.

TABLE 3

Mental Health Costs Under NHI, 1980
Estimates of ADAMHA Work Group on NHI Cost Estimates

Inpatient Facilities (active care only)	Estimated 1980 Expenditures (in 000's) without NHI	with NHI	Estimated Percent Increase with NHI
State and County Mental Hospitals	1,829,097	2,286,371	25%
Private Mental Hospitals	403,873	444,260	10
Other Public Mental Hospitals (VA neuropsychiatric, prison psychiatric)	364,588	401,047	10
Non-Federal General Hospitals			
Without Separate Psychiatric Unit	1,050,854	1,155,939	10
With Separate Psychiatric Unit	2,472,270	2,719,497	10
Federal General Hospitals			
Department of Defense	120,697	132,767	10
VA General Hospitals	563,030	619,333	10
PHS	2,880	3,168	10
IHS	7,808	8,589	10
Community Mental Health Centers	437,708	583,465	33
Children's Treatment Programs	205,911	226,502	10
Halfway Houses and Community Residences	43,323	47,655	10
Physician Visits to Psychiatric Inpatients	750,204	1,294,288	10
Total Inpatient	8,252,243	9,922,881	20

(table continued)

TABLE 3
(continued)

Organized Outpatient Mental Health Settings	Estimated 1980 Expenditures (in 000's) without NHI	with NHI	Estimated Percent Increase with NHI
VA General Hospital (psychiatric unit)	51,335	77,003	50%
Non-Federal General Hospital (psychiatric unit)	325,279	487,918	50
Free-standing Outpatient Clinics	710,368	1,065,552	50
State and County Mental Hospitals	773,917	1,160,876	50
Federally-Funded CMHC's	874,642	1,311,963	50
Other Mental Health Facilities	540,314	810,471	50
Total Organized Outpatient Mental Health	3,275,855	4,913,783	50
Organized Outpatient Health Settings			
HMO's	63,999	95,999	50
General Hospital Outpatient Departments	243,229	364,644	50
Neighborhood Health Centers	52,062	78,093	50
Migrant Health Programs	2,097	3,145	50
National Health Service Corps	1,340	2,009	50
Home Health	265	397	50
Department of Defense	16,197	24,295	50
PHS	533	800	50
IHS	7,517	11,276	50
Total Organized Outpatient Health	387,239	580,859	50

(table continued)

TABLE 3
(continued)

Private Office-Based Providers	Estimated 1980 Expenditures (in 000's) without NHI	with NHI	Estimated Percent Increase with NHI
Psychiatrists	1,236,000	2,179,068	76%
Other Physicians	93,677	187,354	100
Psychologists	533,000	1,066,000	100
Total Private Office-Based Practice	1,862,677	3,432,422	84
Grand Total	13,778,014	18,849,945	37

Studies of the Utilization of Large, Insured Populations. The most intensely studied group in the U.S. for utilization of mental health services is Federal employees. Carriers for this coverage have been responsive to government-sponsored requests for information for research, and data have been easily accessible to researchers. With relatively liberal coverage, Federal employee's policies have been seen by many as a desirable model for NHI for mental health benefits. Federal employees' behavior has been followed closely from the late 1960's when Federal employees were first given choice of coverage with generous coverage for mental illness (Reed 1975; Rustead and Sharfstein 1978). Mental health benefits did not impose unbearable financial burden on insurance carriers. Extensive mental health benefits, including coverage for virtually unlimited psychiatric visits at 80 percent, were clearly "insurable." Real costs for mental health coverage, however, have risen steadily over time. This has lead to some question about the wisdom of including such generous coverage under NHI. One carrier, Aetna, the second-largest among the plans available to Federal employees, reacted to continued growth in costs of mental health benefits by placing a special limit of 20 visits per year on its outpatient mental health benefit.

John Krizay (1979) has examined the recent experience under the Federal Employees Benefit Program (FEBB) to investigate whether costs have continued to rise. Table 4 reports Krizay's basic data. Over the period 1973-1977, inpatient costs for psychiatric care seem not to have increased at all while outpatient psychiatric costs appear to have mildly increased. On the basis of these figures, Krizay concludes that demand for psychiatric care by Federal employees has leveled off.

It is difficult to interpret a relative constancy of psychiatric charges as a leveling off in demand because other factors were changing during 1973-1977 to hold back utilization. Aetna cut back psychiatric coverage in 1975. The effect of this may be showing up in the decreases in psychiatric costs both inpatient and outpatient in 1975. One natural interpretation of these figures is that demand has been steadily increasing over time and that it is the one-time cutback in benefits, quite evident in the table for 1975, that makes utilization for 1977 similar to 1973. In addition to the Aetna cutback, more employees are choosing HMO's of local plans with limited psychiatric benefits. In general, insurance coverage for psychiatric care for Federal employees is less in 1977 than in 1973.

In sum, it is not possible to say that demand for mental health care has leveled off among Federal employees. In spite of more employees choosing plans with lower coverage, the costs for psychiatric services have continued to creep upward the period of 1973-1977. It is important to understand this trend. Is the cause a changing composition of Federal employees? Increasing real income?

TABLE 4

Cost Per Covered Person for Psychiatric Benefit, Federal Employees Health Benefit Plan, 1973-1977, 1977 Prices[1/]

(9 plans covering approximately 70 percent of employees)

Year	Inpatient	Outpatient
1973	$14.18	$6.54
1974	14.40	7.02
1975	13.00	6.36
1976	14.58	7.29
1977	14.11	7.22

1/ Deflator for outpatient services in psychiatric office visit component of the BLS CPI general medical index. Inpatient services are deflated by the hospital room and board component.

Source: Krizay (1979).

Slow learning about benefits? Changing attitudes towards mental health care? The major drawback to this type of utilization study is that with so many possibilities, and nothing but aggregate information, it is impossible to sort out effects.

Liptzin, Regier and Goldberg (1979) have recently examined the 1975 claims experience of the 2.3 million subscribers of The Blue Cross/Blue Shield of Michigan and their dependents who were covered by the Comprehensive Hospital and Michigan Variable Fee-2 (MVF-2) benefits during 1975. The MVF-2 insurance plan has generous initial coverage for outpatient psychotherapy by psychiatrists or other physicians, including no copayment for the first five visits, but a total of $400 per year for outpatient psychiatric benefits.3/ In 1975, the Michigan population incurred per capita charges of $4.89 for outpatient and $16.18 for inpatient psychiatric care. Outpatient charges are noticeably low and inpatient charges high for a program designed to encourage early detection of mental problems through fully insured initial visits to a psychiatrist. Comparing these figures to those reported in table 4 for Federal employees, we note that in spite of the generally lower socioeconomic status of the Michigan population, and in spite of less generous coverage in important ways under MVF-2 (particularly exclusion of coverage for long-term outpatient care that represents a high proportion of the charges for Federal employees), the Michigan population ran up a larger total cost for treatment of mental disorders.

There are a few possible explanations for this. Socioeconomic factors may not be as important in demand as many suspect when groups are nearly fully insured. Demand may be very sensitive to elimination of deductibles and early copayments for psychiatric care. (There is some support for this in the Michigan data: over 4 percent of the total population used some mental health benefit in 1975, compared to about 1 percent for the Federal employees group.) Or possibly, the MVF-2 plan is exactly the wrong thing to do for purposes of cost control. No initial barriers may bring the disturbed into the mental health care system, but with limited outpatient coverage the only way for the more seriously ill to be treated would be on an inpatient basis.

A number of studies have reported the cost of mental health benefits within prepaid group practices or health maintenance organizations (Jones and Vischi 1979). In general, the finding has been that mental health benefits can be provided to a population enrolled at a prepaid group or HMO at much less cost than comparable benefits to a population in a conventional insurance plan. The implications of this for policy depend very much on just why it is prepaid groups achieve lower costs. Again, existing research has not been able to discriminate among some important possibilities: 1) Professional staff in a prepaid group generally receive a salary rather than collect a fee-for-service and may have less financial interest in extending treatment. 2) By hiring a limited number of mental health professionals, the prepaid group's management may force professionals to ration care by nonprice means. Staffing policy by management may effectively determine cost per member. 3) Treatment goals in

a prepaid group are typically much more oriented to "return to function" than "personality reconstruction." 4) Prepaid groups make extensive use of non-M.D. staff. 5) Treatment is more frequently conducted in group settings. 6) Members of prepaid groups may differ systematically from those chosing other insurance plans.

It is hard to generalize from studies of utilization of mental health services by a large, insured population. They are incapable of providing information about how demand and utilization would change with changes in coverage, population characteristics or supply conditions. Too many circumstances differ among studies to confidently attribute differences in their results to specific factors.

Demand Studies Using Disaggregated Data. The general health economics literature progressed rapidly from exploratory work on demand using aggregate data of the type described in the previous section to formulation and estimation of demand models of consumer/patient behavior based on household or individual survey data.4/ The advantage of disaggregated data comes when key factors, such as income or insurance coverage, vary within the sample so their effect on demand can be assessed. Individual data on people in different circumstances are, however, typically expensive to collect. In the mental health sphere, where illness and treatment are especially sensitive topics, collection of information about patients and their use of services presents special difficulties. There is only one survey that I know of suitable for use as a basis for estimation of demand for mental health services. Fortunately this survey was very well done, making it one of the most interesting sets of data ever assembled on patients and physicians.

In 1973, The Joint Information Service (JIS) of the American Psychiatric Association and the National Association for Mental Health sought to compile information for a comprehensive profile of psychiatrists in private practice, including psychiatrists' methods of treatment and the people psychiatrists treat. Within this general purpose, the JIS had special interest in the relation between insurance coverage and utilization of private psychiatry. After pretesting in February 1973, the JIS distributed a survey to a geographically representative 10 percent sample of psychiatrists who spent at least 15 hours per week in private practice. Backed by the authority of the APA, and aided by repeated followups by local chapters of the APA, the final response was 73 percent, for a total of 440 psychiatrists.

Each of over 400 psychiatrists filled out a questionnaire for themselves, and one each for their last ten patients in the most recent typical week of private practice. Basically, the survey provides for each psychiatrist: age, location, subspecialty, size of practice, average length of treatment, and fee; for each patient: age, sex, race, marital status, inpatient history, office visits in the last 12 months, diagnosis and severity, recent types of treatment, alcohol and drug use history, expected future number of office visits, occupation, income, and extent of insurance coverage. Although psychiatrists actually completed the entire questionnaire, the

survey works both sides of the medical encounter, providing a large data set nearly without parallel in the richness of financial, clinical, and socioeconomic information about physicians (in this case psychiatrists) and their patients.

In the first write up of these survey results, sponsored by the JIS, Marmor (1975) discussed a series of one and two-variable breakdowns of descriptive material prepared from the survey data. One of the most interesting comparisons was the utilization of insured and uninsured patients. On average, in the 12 months preceeding the survey, uninsured patients made 49 visits to their psychiatrist, while insured patients made an average only 44 visits. This surprising, potentially important finding led Marmor (1975) to conclude: "The figures strongly indicate that the existence of insurance coverage does not lead to increased frequency of visits..."

Two-variable simple associations can be misleading. Unless the insured and uninsured patients are otherwise the same, comparing the whole group of uninsured with the whole group of insured in the sample is not a reliable way to test for the effect of insurance. In some recently completed work I used the JIS survey data to estimate a model of demand for services of private psychiatrists. When the influence of other independent variables is controlled in a regression, a patient's insurance coverage was found to encourage extra utilization. Controls included patient's sex, race, country of birth, marital status, occupation, income, diagnosis, severity, inpatient history, place of first contact with the psychiatrist, psychiatrist's age, region of the country, proxies for social attitudes towards mental illness in the locality (to be discussed below), price, insurance, and in some regressions, psychiatrist's subspecialty. It is impossible to discuss the full results of my study here, I will instead note the important findings for issues of financing and demand.[5/]

The JIS survey collected information on patients already in treatment by private psychiatrists, so it was only possible to estimate, using this data, the influence of insurance on number of visits. Any effect of insurance on the decision to initiate treatment could not be assessed. The insurance variable used was the percent of charges paid by the patient. For the whole sample, one percent increase in insurance coverage increased numbers of visits by about .4 percent. It is interesting to see, in table 5, how this effect varied over income class. The poorest patients were most sensitive to insurance, while patients with family income of above $30,000 in 1973 showed no significant effect of insurance on length of treatment at all. This pattern of responsiveness, showing a negative income-price cross elasticity of demand, has important implications for the distributional impact of NHI.

Increases in utilization under NHI would come both from new people seeing psychiatrists and other mental health professionals, and from people already in treatment extending their treatment. In elasticity terms, the increase in the total expected number of visits a person makes with respect to a one percentage change in insurance is the sum of the percentage of the probability of seeing a psychiatrist

TABLE 5

Insurance and Number of Visits, McGuire Study

Family Income of Patient, 1973	Percent Increase in Visits with One Percent Increase in Insurance
less than $10,000	.569[1]
$10,000 - $19,999	.405[1,2]
$20,000 - $29,999	.247[1,2]
$30,000 and up	-.143[2]

Source: McGuire (1980)

1/ Different from 0 at 5 percent level of significance.

2/ Significantly different than .569 at 5 percent level of significance.

plus the percentage change in the number of visits made given a psychiatrist is being seen. I have estimated the percentage increase in the number of visits to be about .4 for the average person in the U.S. Behavior of Federal employees strongly suggests that the percentage change in the probability of seeing a psychiatrist is at least as responsive to insurance coverage.[6/] Summing increases in treated episodes and increases in visits per episode, the elasticity of demand for private psychiatric services appears to be about one, or slightly higher. Demand elasticity for other physicians' services is estimated to be less than one, usually about .5 (Newhouse 1978).

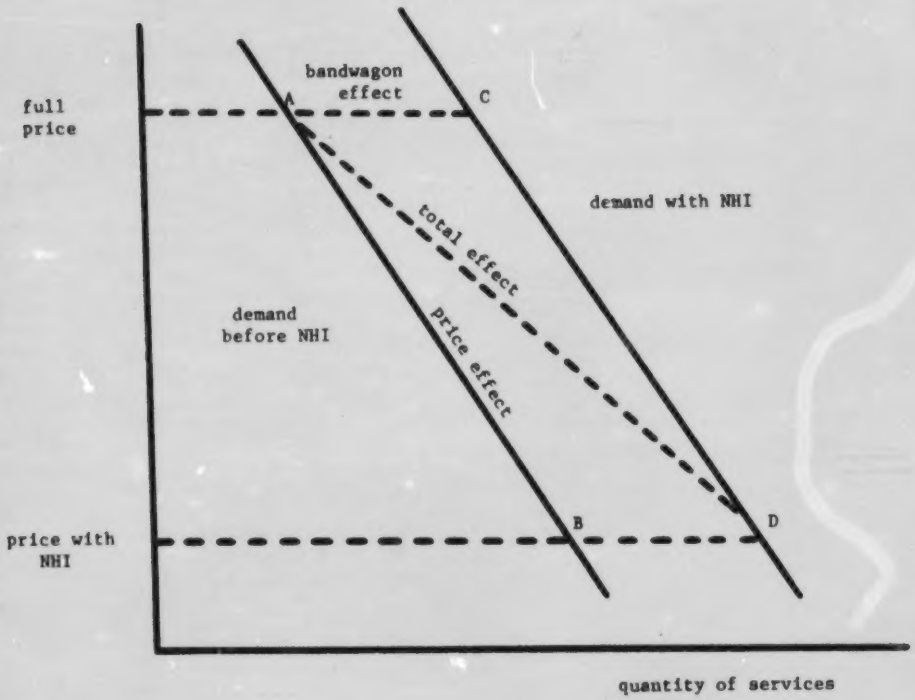
Social and cultural factors clearly condition demand for mental health services. Prejudice against treatment for mental illness has been widely noted (NIMH 1976). With this in mind I included in my demand model variables measuring average education and urbanization in the patient's county of residence to proxy for the "permissiveness" of local attitudes. The thinking behind this was partly that one factor that may affect someone's willingness to undergo treatment is <u>others</u> willingness to do so. With regard to financing and demand, this behavior may have important consequences for increases in demand resulting from a broad-based insurance plan, such as NHI. A decrease in the price I pay for services would make me buy more, but also, my buying more would make it more likely that someone else would seek care. Putting this another way: As people undergo more frequent and more extensive mental treatment with NHI, mental treatment may be considered less odd or shameful. <u>As a result of this change in attitudes, many people with emotional problems may be newly willing to seek treatment or to undergo more extensive treatment for themselves</u>. Leibenstein (1950) coined a term for this behavior: bandwagon effects.

Bandwagon effects are present if someone's demand for a commodity is increased by others' consumption of that commodity. Bandwagon effects are obviously at work for goods that are stylish; but it would be a mistake to think that bandwagon effects are found only among luxuries or trivial commodities. Some of our most "respectable" goods and services, such as educational, legal and medical services, may be highly susceptible to bandwagon effects. Among medical services, mental health treatment might be particularly susceptible to bandwagon effects, both because of the reservoir of prejudice yet to be overcome and because of the indefiniteness of the "appropriate" treatment for many mental disorders. After NHI or other broad-based insurance plan, many more people will be seeking help for mental illness, and seeking it for more extensive care than before. If mental illness and treatment thereby become less odd or shameful, an individual's demand may be effected. The individual's entire demand would shift because of a bandwagon effect. The individual would buy more services at any price.

We can imagine decomposing the effect of NHI on demand into a bandwagon effect and a price effect. Figure 1 shows an individual's demand for mental health services before NHI. Paying full price for care the individual is at point A. If NHI took the peculiar

Figure 1

Price and Bandwagon Effects of NHI



form of insuring everyone but the individual whose demand is depicted in Figure 1, bandwagon effects would shift his entire demand curve out as shown. The pure bandwagon effect is the move from A to C. The pure price effect of NHI, when insurance coverage to this individual only changes, is the move from A to B. Putting these two moves together, we have the total effect of NHI, the price effect plus the bandwagon effect, moving the individual from A to D.

As we have drawn the shift in demand curves in Figure 1, the bandwagon effect is large. How large it is, and if it exists at all, is of course an empirical matter. The bandwagon effect is not a law of behavior, only a possibility. To check for bandwagon effects a measure of "others" demand should be entered into the demand equation of an individual. In my study, "others" were defined as a patient's "neighbors" in the county or the state where the patient lived, and variables to measure bandwagon effects were indices of neighbor's demand. Five measures of neighbor's demand were entered, alternatively, into the model of demand of an individual patient.[7] Of the five proposed measures, three had coefficients estimated to be positive and significant, supporting the hypothesis of bandwagon effects on demand.[8] Two estimated coefficients were insignificantly different from zero. To establish the existence of bandwagon effects, it is necessary to establish that area demand, that would be sensitive to NHI, that is a positive influence on an individual's extent of treatment. I sought to rule out other elements of the local "atmosphere," like average education or the California lifestyle, which would not be sensitive to NHI, by including controls for such variables in the regressions along with the demand indices.[9]

While these results are not conclusive proof of the existence of bandwagon effects in demand for private psychiatric care, local demand indices, in the presence of controls for other aspects of atmosphere, do appear to have some positive effect on the extent of treatment of individual patients. The magnitude of this effect is about the same size as the price-effect of insurance. A one-percent increase in the number of persons covered increases the extent of treatment by .5 by .7 percent.

It is important to note that the welfare economics of demand increases brought about by bandwagon effects of insurance differ radically from the welfare economics of increases from simple price-effects of insurance. Bandwagon effects are not the result of a subsidized price (to this patient). Bandwagon effects shift demand rather than move the patient down his demand curve, so no "triangle losses" are created by this change. If, as mental health professionals and many others have argued, demand for psychiatric care is held artifically low by social taboos born of ignorance and fear, NHI and its associated effects may bring welfare gains from correction of inappropriate demand. Bandwagon effects are not a presumptive sign of inefficiency as are the price-effects of insurance.

At minimum, these results imply that bandwagon effects are worthy of further investigation. An exclusive focus on the price-elasticities of demand and supply might well obscure a full view of what would happen under a NHI plan. When everyone is entitled to essentially free care, social attitudes towards use of all kinds of medical services may undergo significant shift. RAND's health insurance experiment is expected to produce the most definitive estimates of the price effects of insurance. The RAND experiment insures scattered families without changing the "atmosphere" in which medical services are demanded. If bandwagon effects power demand for general medical services, the RAND experiment is not a good small-scale model of NHI. Predictions based on simple price-elasticities may seriously underestimate demand increases under a broad-based insurance plan.

Insurance and the Distribution of Income

NHI is by nature redistributive, taking purchasing power from the temporarily healthy and putting it in the hands of the temporarily sick. There has not been substantial concern that redistribution from the health to the sick would worsen the distribution of income in the U.S. While higher income groups use more medical services than lower income groups, they do not use more in proportion to their income.[10] Combining this with a Federal tax system roughly proportional to income leads to the result that the net incidence of NHI would be progressive, that is, would redistribute in favor of the poor.[11]

Distributional complacency does not pertain to all parts of proposed NHI packages. In particular, coverage for some parts of mental health services has been subject to severe criticism on the grounds that public insurance for these services would redistribute income to upper income groups. It should be noted that insurance for most of the mental health service system is immune from this attack. Public inpatient facilities primarily serve the indigent. While there is debate in the context of public outpatient facilities, such as CMHC's, about whether the poor are served equally with the middle class (the rich avoid these setting altogether), there is absolutely no doubt that on balance, taking into account taxes paid as well as benefits received, these programs transfer income towards the bottom of the income distribution. Well over one-half of all patients served at CMHC's fall below the official poverty line.

Criticisms of the distributional impact of NHI center around effects anticipated from public funding of services provided by psychiatrists and psychologists in their private offices. Intensive, individual therapy is, and is widely anticipated to remain, the nearly exclusive privilege of the well-to-do. Data from the JIS survey of psychiatrists in private practice is the evidence cited to support the widely held suspicion that individual therapy in private practice is a service for the rich. Forty-one percent of patients in the 1973 survey had family income above $20,000, while in the U.S. overall only 14 percent of families had income that high. Only 2 percent of psychiatrists' private patients were black. Senator

Kennedy, among others, had cited these statistics and expressed concern about the distribuyional consequences of public financing for this service.[12]

"If we were to implement a comprehensive national health insurance program tomorrow, and if we did not change in any way the geographical location or the patient loads of psychiatrists, we would be asking the 86 percent of American families whose earnings are under $20,000 a year to pay the lion's share of the cost of a health care service which is rendered by and large to individuals in families whose incomes are over $20,000 a year."

The consensus that NHI for mental health services provided in private practice would subsidize the rich needs serious reexamination. Data from the JIS survey, when correctly interpreted do not support the view that NHI for even the potentially most distributionally offensive part of mental health services--psychiatrists in private practice--would redistribute away from the poor.

A correct interpretation of the evidence involves three points. First, the method of sampling, drawing the "last ten" patients, oversamples heavy users. This method in effect takes a random sample of visits rather than of patients. Statistical inference back to population values for patients requires a weighting of observations.[13] When this is done, because the poor tend to use service with less frequency than the rich, the proportion of poor patients is understated when the sample of last ten patients is treated as a random sample. Second, the mix of patients would change under NHI. With negative income price cross elasticity, the poor would increase their share of services under NHI. Third, the rich pay more taxes than the poor.

Taking these factors into account, I have estimated the net fiscal benefits to four income classes of a NHI program paying 80 percent of charges with no limits on utilization.[14] The net benefit position of the 86 percent of the population with income less than $20,000 is essentially unchanged. The only significant redistribution apparent from imposing this simple NHI plan on the JIS data is from the upper middle class (income from $20,000 to $29,99) to the upper class (income above $30,000). While this may not be particularly desirable, of much more importance is that there is no evidence that NHI for private psychiatry would redistribute away from the poor.

Summary of Conclusions and Directions for Research

This review of financing and demand for mental health services suggests a few tentative conclusions and a number of areas of high priority for research.

The Price Effect of Insurance. There has been only one demand study for a mental health service, and that was confined to study of the

extent of treatment in private psychiatry. The demand for psychiatrists' services in private practice is apparently more responsive to insurance than is demand for other physicians' services. More research is needed to check this finding and to begin to understand people's response to insurance coverage in other settings. Studies of the aggregate behavior of insured populations should continue. These are easy to do, and with accumulation of fairly large numbers of these studies covering insured populations with different characteristics, outlines of the general consequences of financing policy may soon be able to be drawn. A major effort should be made, however, to investigate demand for mental health services by study of individual behavior using survey data. Only at this level and in the presence of controls can effects of key variables such as the term of insurance be assessed with confidence.

There are numerous ways to contain demand induced by insurance coverage: coinsurance/deductibles/limits on insurance, public regulation, professional self-regulation, and nonprice rationing of services. Each should be investigated. The effects of coinsurance, deductibles and limits can be estimated from studies of demand. The effects of the other three methods of control will probably need to be investigated at this stage through case studies of particular insurance pools. Public regulation of the form, "this disease is covered for so many visits," is not in my judgment a hopeful policy. Providers and patients will each desire to circumvent such regulation. The provider's perogative to diagnose gives him the power to do so.

Professional self-regulation and nonprice rationing of services have demonstrated some promise in controlling cost (Armer 1977). Exactly what was the operative factor in controlling costs in these studies, and at what other expense cost was controlled, however, is not well understood.

Insurance and Bandwagon Effects. Two sets of facts, the continual growth in demand of an insured population over time and the significance of local demand indices in an individual demand equation for private psychiatric care, suggest there may be bandwagon effects at work on demand for mental health services. These findings are far from conclusive, but in my judgment, given the nature of our attitudes towards mental illness and its treatment, bandwagon effects in demand for mental health services are highly plausible. Future research should be alert to this possibility and should seek to test for bandwagon effects where possible. Considerable ambiguity in interpretation of "bandwagon" variables is, however, likely to remain. For policy, the implication of the possible existence of significant bandwagon effects is that estimates of demand and utilization developed from simple price elasticities will understate the eventual increase in demand after changes in attitudes brought about by increased demand have worked themselves out.

Choice of Setting For Mental Health Care. This is a very important issue about which we know very little. There is fairly broad consensus that some limit on coverage for outpatient mental health

benefits is necessary, largely for reasons of cost control. It is not obvious though that a restrictive limit on outpatient care would effect the desired savings. The Michigan study discussed above raised the possibility that to continue treatment in the presence of restrictive outpatient benefits, people were forced to use more expensive, but covered, inpatient facilities. National policy towards financing mental health services will involve a series of decisions about who should be authorized to receive payment for what type of services. This concerns different professional groups as well as different service settings. How coverage for one setting will effect demand in others is not known. This is crucial for evaluation of policy. In my judgment the most important task for research in demand and financing of mental health services is to begin to investigate the forces which affect people's choice among settings for care, and in particular, how these choices can be influenced by policy. An extensive survey is the ideal. In the meantime, something may be learned by comparison of the behavior of state populations as opportunities for care vary among states and within states over time. States have very different mental health systems in many respects, creating the potential for a crude natural experiment.

Integration of Mental Health with Health and other Social Services. One of the most important components of the case for public financing for mental health services is that mental health services may be the most effective way to deal with problems that would otherwise be dealt with as general health problems or other social problems. Some studies have concluded that provision of mental health services can lead to significant reduction in general medical costs, or to improvements in work performance (Jones and Vischi 1979). It is not clear from these studies in what circumstances these favorable interactions take place. Reductions in medical costs and improvements in performance in work have so far only been demonstrated when provision of mental health services is closely integrated with the other area in which savings occur. That is, savings in medical costs are shown in prepaid group practices, and improvements in work when mental services are provided through an employee assistance plan at the site of employment. It seems possible that integration of services may be crucial for the favorable interaction. A shared goal by the provider and patient in making the patient "better," especially in terms of a specific measure such as better work performance, may be contributing to the goal's achievement.

Financing policy for mental health services, should therefore, if this is true, have as its goal encouraging services within these particularly effective settings. Some NHI proposals, in effect by requiring mental health services to be delivered in traditional, limited settings, would undermine employee assistance programs and other types of mental health service settings that are among the success stories in this field. More research is needed into the circumstances in which mental health services may offset other costs to society and into financing policy which can foster growth of these settings.

Financing of Mental Health Care and Distribution. Distribution has many dimensions of concern for policy: rich and poor, young and old, black and white, male and female, urban and rural, user and provider, among many others. Much of Federal and State policy in mental health services has been motivated by distributional concerns. Federal financing for a comprehensive NHI program for mental health services would probably not adversely affect the distribution of income, although this conclusion cannot be stated with extreme confidence. The effect on other dimensions of distribution are even less well-understood. Given the importance of distribution considerations for policy in mental health, much more research is needed in how putting purchasing power in the hands of disadvantaged groups will influence the quantity and type of services they receive.

FOOTNOTES

1/ There are not good statistics on the percent of population covered for outpatient psychotherapy. Reed, Myers and Scheidemandel (1972) estimated for 1970 that about 30 percent of the population had some coverage.

2/ The case for NHI, or any form of compulsory insurance plan, must be built on some motion of market failure. A decision for NHI is a decision not to rely on private markets to provide coverage. The potential bases for market failure for insurance for mental health care are adverse selection, benefits to treatment ignored by the individual, and distributional concerns. For discussion of the issues and evidence, see McGuire (forthcoming).

3/ The copayment schedule is as follows:

visits 1 through 5:	none
visits 6 through 10:	15%
visits 11 through 15:	30%
visits 16 and up:	45%

4/ Compare the early work of Feldstein (1970), Newhouse (1970), or Scitovsky and Snyder (1973) with Newhouse and Phelps (1976) or the description of the on-going Rand experiment in demand for medical care, described in Newhouse (1974).

5/ A random sample of psychiatrists in private practice who are enrolled in the APA would differ very little from a random sample of psychiatrists in private practice without the restriction of APA membership. Overall, about 75 percent of psychiatrists are members of the APA. Furthermore, physicians in private practice are more likely to be members of their specialty organization than are physicians generally.

6/ The JIS data required special handling in a number of respects. "Self-selection" into the sample was dealt with using a version of Heckman's (1976) "omitted variable" technique. Insurance coverage was in some regressions replaced by an instrumental variable estimate. Total visits made by a patient was the sum of actual visits in the past plus visits projected for the patient by the psychiatrist. Systematic over or under estimation of future visits was checked by inclusion of a special variable. For discussion, see McGuire, in press (a).

7/ Comparing the behavior of the 2.5 million Federal employees and their adult dependents in a plan paying for 80 percent of charges with the behavior of the U.S. population with an average about 15 percent coverage, the estimates response is a 2.75 percent increase in probability with a 1 percent increase in insurance coverage. This estimate probably includes some

bandwagon effects from co-worker's increase in utilization with insurance, but this is appropriate, as such effects would also apply to NHI.

The Blue Cross/Blue Shield "high option" plan, which paid (after a small deductible applicable to all medical expenses and up to a limit of $250,000) 80 percent of charges made in a psychiatrist's private office. These people saw private psychiatrists at the rate of 30 per 1,000. (Reed 1975). Subtracting the 66,000 Federal employees and their adult dependents in treatment in 1973 from the estimated U.S. total of 728,000, and subtracting the 2.5 million enrollees from the U.S. adult population, we compute that the cases per thousand of the over 130 million adults enrolled in the "poor" insurance plan varied, but a reasonable guess is that the average coinsurance rate for adults in the U.S. (not enrolled in the BC/BS high option plan) was about 15 percent. The average coinsurance rate in our 3,000 patient sample was 23 percent. Although Reed, Myers and Scheidemandel (1972) quote no figure, they give evidence to support the idea that in the early 1970's about one-third of Americans had some form of coverage for private psychiatry, and that the average coinsurance rate was about 50 percent.

Fitting a curve with a constant percentage change in probability with a change in coinsurance to the two points, (80 percent coverage, 30 cases/1000), (15 percent coverage, 5 cases/1000), gives an estimate of a 2.75 percent increase in the probability of seeing a psychiatrist with a 1 percent change in coinsurance. This is a rough estimate, neglecting as it does adverse selection, but with 30 cases/1000 with 80 percent coverage and 5 cases/1000 with 15 percent coverage, the implication that the decision to see a psychiatrist is sensitive to insurance coverage could hardly be avoided.

8/ Proposed measures of local demand were as follows:

1. Probability the "average person" in the county sees a psychiatrist.

   To estimate the probability that the "average" neighbor of a patient sees a psychiatrist, I applied an abridged version of a model of the decision to see a psychiatrist with individual data to the county population characteristics. The formula I used to define this variable was:

$$\text{prob the average person sees a psychiatrist} = \frac{1}{(1 + e^{-\text{index}})}$$

   where

   index = 4 - .1254 (percent male) - 1.693 (percent 65 years or older) + 1.455 (percent of families with income greater than $25,000)

The next three bandwagon variables were indices of insurance coverage (demand) for private psychiatric care for persons in the patient's state.

2. Percent of the population under 65 covered by regular medical insurance in 1973.

3. Percent of (samples) patients of private psychiatrists with some third party coverage at 50 percent of charges or better.

   This may be a more direct measure of the insurance for private psychiatric care held by a patient's neighbors.

4. Percent of (sampled) patients of private psychiatrists with third party coverage at 50 percent of charges or better.

   This is an indicator of the percent of neighbors with "good coverage."

5. Office-based psychiatrists to population ratio in the state in 1970.

   This is a supply measure, but on the presumption that demand equals supply, it is an index of demand at the state level. A special difficulty with this variable is that psychiatrists may be more willing to locate in certain areas of the country apart from demand consideration. A positive estimated effect of this variable may then be indicating a lower nonmonetary price of services or some physician influence utilization.

9/ The "successful" variables were numbers 1, 2, and 4 from the previous footnote.

10/ Controls on local "atmosphere" in addition to bandwagon effects included dummies for five regions of the country, percent of the population in the country with four or more years of higher education, and population density in the country.

Still, a problem with our measures, just as there is with any variable in a nonexperimental setting, is that there is always the question of just what is being measured by an independent variable. Even a variable so straightforward as income, for example, may truly indicate something else, such as "social class"; and if so, interpreting the estimated coefficient of income as an "income effect" would be wrong. Increasing someone's income might not change their social class and might not have the predicted effect on behavior. Similarly, my indices of local demand may indicate some other characteristic of the county or state that is not sensitive to change with NHI, as demand would be. The literature which seeks to find evidence of wage discrimination by sex and race is particularly beset by this problem. Large and significant coefficients of sex

race variables in a wage equation are not convincing evidence of discrimination unless other possible explanations of the coefficients (e.g., higher quit rates) have been eliminated by suitable controls. The best the researcher can do is to cover as many of these reasonable alternatives as possible. This is almost always an incomplete task, leaving the strength of the proposed interpretation of discrimination or bandwagon effects to be weighed in relation to the degree of success in eliminating alternative reasonable explanations. By including in the regressions regional dummies, and variables for local education levels and urbanization, I hope to have controlled for the major alternative explanations for what a bandwagon variable may be picking up.

11/ Newhouse and Phelps (1976) estimate income elasticities of demand for physicians' and hospital services to be less than .1. Partial income elasticities, controlling for other variables, are not however, relevant for distributional questions; it is the uncontrolled association of income and consumption which matters. Even if education were the "true" cause of higher utilization, and the effect of income controlling for education were zero, the rich would still be consuming more medical services since they are better educated. Davis and Reynolds (1976) provide evidence that consumption of medical care rose less than proportionately with income.

12/ See Feldstein, Friedman and Luft (1976). Data limitations forced Feldstein et al. to assume an income elasticity of zero and income-price cross elasticities of zero. These assumptions virtually guarantee that a federally financed program will be redistributive in favor of the poor.

13/ From Kennedy's remarks in Marmor (1975).

14/ Basically the weight is the inverse of the probability an observation appears in the sample. For discussion, see McGuire, in press (b).

15/ This is taken from McGuire, in press (b). One of the serious drawbacks of this methodology from public finance is that there is no consideration that benefits from expenditures made on behalf of a consumer can be shifted to suppliers. In our case, to the degree that supply of services is inelastic, benefits of this government program will be shifted to psychiatrists through price increases.

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REGULATION AND COST CONTAINMENT IN THE DELIVERY OF MENTAL HEALTH SERVICES

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Introduction

The effects that regulation and cost containment measures have upon the delivery of mental health services are clearly of interest and importance to all who participate in the delivery of those services -- patients, providers, insurance companies, and policymakers. It is striking, therefore, that very little evidence exists and very little analysis has been done concerning these effects. Hence, what I shall try to do in this paper is present a perspective on the issue of regulation and cost containment in the mental health area and examine the implications that perspective has for research in the economics of mental health.

The Goals of Regulation in Mental Health Services

The first question to be asked is, What are the goals of regulation in the mental health services area? It is quite clear that specifying cost containment as the goal of regulation, as the title I was assigned for this paper would suggest, limits severely the focus of regulation. Indeed, such a specification not only limits but also distorts regulation's focus. It misplaces the emphasis of any regulatory strategy because one cannot talk about cost containment in the abstract. Instead, for the discussion to be meaningful, one must specify the activity or activities whose costs are being contained; one must discuss containing the costs of *what* and indicate what services are to be provided. Though it is crucial to recognize the "moral hazard" and "overutilization" possibilities that exist in a mental health service delivery system with widespread third-party coverage, we cannot simply talk about "limiting utilization" as the ultimate goal in that system. After all, one way to limit utilization would be to have no system at all, and a less draconian, though still drastic, way to limit utilization would be to rely solely on medication. Constraints on cost containment itself must be recognized and these are reflected in the fact that regulation has other objectives as well -- for example, protecting the public, ensuring quality standards, and perhaps even seeing that some minimal level of care is available to all. The variety of forms regulation in the mental health services area takes on is indicative of this multiplicity of concerns.

The Forms of Regulation of Mental Health Services

There are several different types of regulatory mechanisms in the mental health services area. First, there is the "market" for mental health services itself, and the operation of the forces of supply and demand as they manifest themselves in the "exchanges" between

providers and patients. Although one ordinarily conceptualizes regulation as an "outside" force that enters into the system, otherwise comprised only of providers and patients, it is worth bearing in mind--particularly with regard to the goal of cost containment --that the market itself serves a regulatory, a resource allocation function. And the market has become a more significant allocative force in this area as the delivery of mental health services in the U.S. has been reoriented dramatically from inpatient to outpatient care during the course of the past twenty-five years.

A principal way government directly regulates mental health service delivery is through professional licensing laws. In part of his encyclopedic study, The Regulation of Psychotherapists, Daniel B. Hogan has compiled and categoried the licensing statutes of the 50 States and the District of Columbia. As he emphasizes, such a law can take a variety of forms: it may protect only a particular professional title (for example, psychologist) or it may protect only the practice of a particular profession (for example, psychology) or it may protect both the title and the practice. One wants to distinguish among licensing laws, which provide that only someone who is explicitly licensed may engage in a particular practice; certification laws, which provide simply that only someone who is certified as a particular professional may refer to himself/herself by that title; and registration laws, which would be the weakest and would require only that anyone practicing psychotherapy must register that he/she is engaged in such practice. Furthermore, licensure/certification laws can be more or less restrictive with regard to a number of features: the qualifications they require, their "grandfather clause" provisions concerning those who were in practice at the time the statute was passed, and the exemptions (for example, for governments, educational institutions) they grant.

State laws also set the terms on which different mental health professionals can and must receive insurance reimbursement for the services they provide. For example, states whose populations comprise eighty percent of the U.S. population have some form of "direct recognition" or "freedom-of-choice" law for psychologists. These laws require that if a psychologist is licensed to provide certain covered services, the insurers in the State must reimburse psychologists directly for those services and independently of a physician's billing for them. If a medical insurance plan pays for treatment of mental health problems and the State has a direct recognition law, the insurance company must pay for services to treat those problems when a psychologist bills for such services. There is variation among the States' freedom-of-choice laws, in particular, with regard to whether they apply to Blue Shield service plans and if they do, whether those plans are treated in the same way as conventional insurance plans.

In addition, State laws determine whether and to what extent different professionals--psychologists in particular--are eligible for reimbursement under Medicaid. And, at the national level, statutes also determine which mental health professionals will receive reimbursement under Federal programs. For example, with the exception of Medicare,

psychologists enjoy independent provider standing in virtually all federally administered plans that make payments for health service costs.

Another mode of government regulation is through the actions of planning agencies for facilities, whether at the regional, State, or national level. Specifically, certificate of need regulation applied to mental health facilities affects the nature of the delivery system. But there is not much evidence about how the certificate of need process has been applied in the mental health area. It is not clear how mental health priorities have been coordinated with concerns about physical health in certificate of need regulation. Some administrators attribute the lack of attention given mental health facilities to the fact that the Health Systems Agencies have not been provided with enough guidance about the criteria to use in performing a needs assessment in mental health. But the HSA's are also empowered to review the proposed utilization of Federal project funds, and recent amendments to the Health Planning and Resource Development Act include within the HSA's purview not only service funds--as for community mental health centers--but also manpower projects and even research projects. In addition, there is the recently granted authority relating to hospital conversion or discontinuance. The pilot program of experimentation which is planned under this authority could provide evidence that could apply to mental health as well as physical health facilities. Overall, the regulatory potential of the HSA's in the mental health area is quite substantial.

A third type of regulation of mental health services is judicial "regulation" through common law decisions in malpractice suits. This regulation via the tort system is particularly important to the goals of protecting the public and ensuring quality standards.

Professional associations, which are organizations of providers, also serve a regulatory function. Their peer review systems and disciplinary proceedings provide additional checks on the quality of mental health services being offered.

Finally, insurance companies themselves may be viewed as "regulators" of the delivery of mental health services. Their reimbursement provisions, which are constrained by the State laws mentioned earlier, set the financial terms on which patients can receive services from different types of providers. While insurance reimbursement of the financial expenses of treatment means that a patient is not being faced with the full marginal cost of the services provided, differences in the degree of reimbursement that depend on the provider's profession affect the patient's choice of provider. This impact is obviously most powerful when insurance companies will reimburse patients for treatment by one type of professional --for example, a psychiatrist--but not for treatment by another --for example, a psychiatric social worker. Of course, the effects such differential reimbursement provisions have on patients' choices will have an impact on fees charged by different types of providers, on the long-run supply of their services, and on the cost of mental health services.

A Cost-Benefit Specification of the Regulatory Goal

If the goal, or at least one of the goals, of these forms of regulation is to be framed in terms of costs, or controlling costs, the concern should be at least with cost effectiveness, at least with asking how effectively we are producing the outputs we do produce. Are the services being provided at a minimum cost? Of course, one confronts the difficult problem of characterizing the multidimensional "output" being "produced;" but coming to grips with that question is unavoidable. And, in fact, a sound regulatory policy must face squarely the even greater difficulties engendered by the need to assess the benefits yielded by the mental health services being delivered. It is fundamental that the only correct way to make policy decisions about whether the costs of a program or a set of services are "too high" is to compare those costs with the benefits being generated--difficult as they may be to enumerate, measure, and value.

A mental health services regulatory policy that results from judgments based upon a sound cost-benefit analysis must decide how to regulate to achieve the desired goals. The two principal choices are to regulate the "inputs" to the process or to regulate the "outputs" of mental health services. The difficulty of measuring the outputs and monitoring them, or even monitoring what is provided in any particular treatment episode or set of episodes, leads policymakers to turn to regulations formulated in terms of inputs. The brief description presented above of the topography of current U.S. regulatory policy in mental health services indicated exactly this move.

But I believe we delude ourselves if we think that by turning to regulation of inputs we can proceed effectively without knowledge of the "production function" of mental health services. We cannot dispense with the need for some measures of both inputs and outputs and at least some belief about the relationship between them. In addition, I would also question whether it actually is significantly easier to measure the inputs of mental health services than it is to measure the outputs. To be sure, certain capital equipment--like beds--and other "inputs"--like drugs--are easy to count and measure, but how does one measure the major input of psychotherapists? Surely, one patient hour of one psychotherapist is not "the same" as that of another; the heterogeneity of the providers is inescapable and merely counting numbers of therapists or patient hours will not suffice.

The Importance of Substitution Relationships

If a goal of regulation of mental health is to produce at a minimum cost the set of services being delivered or, even better, to provide those services (and those levels of service) that emerge from a sound cost-benefit analysis, the central concept which must be addressed is substitutability. Substitution relationships in the mental health area are indeed quite complex and manifest themselves in many dimensions. Let us consider some of these substitution possibilities and see how they impact on regulation.

The first possibility I will call process substitution: alternative modes of treatment or therapies are available and used to improve mental health. Hence, one might ask whether regulation should address itself to certifying particular processes. Should policy-makers decide, for example, that the psychoanalytic approach is to be approved but that encounter groups are not to be, or vice versa? Should all modes of therapy be approved in the sense that therapists practicing any approach are recognized by statute--whether licensure or certification--and patients are afforded insurance reimbursement for such therapy? If we start regulating in terms of which processes, which modes of treatment are allowed, who would have the burden of proving effectiveness of a particular therapeutic mode? How would effectiveness be determined? And, what impact would this type of regulation have on the development of new and innovative therapies or, to carry over a term from the market organization literature, what effect would it have on the rate and direction of technological change in mental health services?

Second, there is substitutability among the various types of inputs. Specifically, one can think of substituting providers' time for institutional facilities, and also the possibility of using medication therapy in a way that reduces either the "labor" input or the use of facilities.

A third type of substitution possibility exists within the labor category itself: changes in the professional, or in the mix of professionals, providing the mental health services. I think the scope of this substitution possibility differentiates the mental health area in a significant way from other parts of the general health field. Mental health services is an area in which a number of types of professionals, and paraprofessionals as well, view themselves as providing services with the same end--namely, improvement in mental health--and, more particularly, as doing psychotherapy. Unlike treatment for physical illness, where a physician is the accepted "captain" of the health service team and other health workers accept physicians' authority, the "division of labor" in treatment for mental illness is much less clear.

In considering substitutability among providers of mental health services, the important question is from whose point of view are these services substitutable. There are at least three possible perspectives: an external observer who "knows" what the outputs are supposed to be and can measure them, the "producers" themselves, or the "consumers" (the patients). The effects of particular regulatory strategies will depend on how these substitution relationships are viewed.

For example, suppose one considered, as some have advocated, "open registration" of all psychotherapists. Under such a system, a therapist would simply register with a State agency indicating what he/she does, what his/her training is, how long he/she has been practicing, what it is he/she tries to accomplish, and what his/her fees are. To evaluate the economic effects of this policy proposal it is critical to know how consumers view the degree to which one

type of therapist is a substitute for another. If potential patients view all therapists as substitutable, then such an "open registration" approach might well, by increasing the supply of therapists, reduce the cost of providing mental health services. But how will patients react to the fact that psychiatrists will still be licensed as medical doctors? If patients believe that the licensing process contains information about the qualifications of physicians as psychotherarapists, then delicensing all nonmedical mental health professionals may, in fact, increase the cost of delivering mental health services and lead to a perceived shortage of those services rather than having the intended cost-reducing, supply-increasing effects. The "open registration" approach would lead to an increased supply of psychotherapy services from the point of view of the objective omniscient observer and from the point of view of some suppliers, but not from the perspective of the consumers.

This type of effect is relevant to evaluations of attempts to various nonmedical professional groups tc secure licensed status and to evaluations of "sunset laws" for licensing of particular mental health professionals, for example, psychologists. To be sure, it is in the self-interest of nonmedical professional groups to obtain licensing. But we cannot stop at that observation and argue that licensing is undesirable simply by invoking the "guild" analogy argument. Instead, evaluation of the social benefits of such licensing laws must take into account the quality controls they provide and the impact they have on social costs if, in fact, different mental health professionals are "highly substitutable" in terms of the services they can provide and non-MD's are "less costly."

A possible response would be that we should undertake to educate consumers about what services each type of professional provides. Then, the argument goes, we could have consumer education cum delicensing as a regulatory strategy for lowering the costs of providing the "same services." The question, of course, is whether such an educational program is feasible, and this returns us to the issue of why there was licensing in the first place -- namely, partially in response to difficulties "consumers" in this market have in making fully informed choices.

The point I want to emphasize is that regulation, and licensing in particular, affects the roles played by different mental health professionals and the way production of mental health services takes place. It is likely to affect, for example; different professionals work in inpatient or outpatient settings; whether they engage in sole practice, partnerships, group practices; and whether group practices are hierarchial in structure with psychiatrists at the top and other mental health professionals below. If a regulatory system licenses one group of professionals but not another (or not others), the supply "system" will respond in terms of the settings in which different professionals practice and the nature of their practices. Thereby regulation affects the cost of providing any particular set of services.

A fourth type of substitution, which any sound mental health regulatory policy must take into account, is that between inpatient care and outpatient care. This is particularly important in view of the substantial shift in the locus of treatment from inpatient to outpatient settings that has taken place in the U.S. in the last 25 years.

Finally, there is the question of substitutability within facilities. This includes substitution within psychiatric inpatient units among short-term, intermediate-term, and long-term care units as well as the relationship between facilities for general health care and those for mental health services. The question in each instance, but particularly the latter, is whether there are substitution possibilities and how substantial they are. How much more effective use of limited hospital capacity can be achieved by better coordination of the planning functions for physical health facilities and mental health facilities? For example, can capacity (beds) readily be reallocated between general health and mental health functions?

This last question raises the more general issue of the relationship between mental health and general health which ought to be noted. There are at least two aspects to the relationship. First, there is the impact of better mental health status on the demand for, and ultimately the cost of, general health services, and the impact of physical health status on the demand for mental health services. Second, it is important to recognize that in the course of ordinary patient visits where physical problems are the presenting complaint, nonpsychiatrist M.D.'s undoubtedly provide treatment for mental health problems. Discussions of the delivery of mental health services and assessments of the efficiency of that delivery system must take account of this activity which takes place outside the "mental health sector."

The Need for a Sectoral Approach to Mental Health Services

The central point is that what is needed is a "sectoral-equilibrium" view of the mental health services area and a regulatory policy that addresses the area from that perspective. This is not a quest for an unnecessary or an unattainable goal. It is not the analogue of the criticism commonly levelled at any partial-equilibrium treatment of an economic question that it should have been examined within a general-equilibrium framework instead. The substitutability relationships in the mental health services area are central, and an analysis or policy that fails to take them into account does so at its peril. In addition, any analysis or policy addressed to issues in the delivery of mental health services must remain cognizant of the relationship, mentioned earlier, between mental health and general health.

What regulatory policy does in one part of the mental health services delivery system--for example, changing the licensing status of one group of professionals--is likely to have "ripple effects" of substantial proportions throughout the system. Issues in the regulation of mental health services cannot be addressed in piecemeal fashion. The system as a whole will adjust to a regulatory change made at any (one) particular point, and this adjustment must be taken into account. One can visualize

the general problem, wich we have been discussing in the context of mental health services, in terms of a balloon that is not fully inflated: you press on it at one point and the contents of the balloon shift to adjust. Alternatively, one has the image of the Dutch child putting his/her finger in the dike to stem the flow at one point, only to have a leak spring out some place else. A sound regulatory policy must recognize that these adjustments will occur and incorporate that recognition into the planning process.

Suggestions for the Research Agenda in the Economics of Mental Health

The implications for economic research in the mental health service area are clear. Such research should provide the kind of information that will enable us to construct the necessary "sectoral-equilibrium" picture. Let me give some examples of the kind of research projects I think are high on the agenda.

First, in the area of professional regulation, research should be undertaken that addresses itself to the effects alternative regulatory structures have upon the several mental health professions --psychiatrists, psychologists, social workers, nurses--and the role each one plays in the delivery system. How do the numbers of different professionals, the settings in which they work, and the organization of their practices vary with differences in licensing regimes and insurance reimbursement provisions (for example, freedom-of-choice laws)? Some research has been done concerning the variation in numbers or types of practice of some mental health professionals. For example, large quantities of data have been gathered about psychologists. In two unpublished papers Herbert Dorken and James T. Webb have examined how the role of psychologists in full-time fee-for-service private practice differed in six States, three of which had freedom-of-choice laws and three of which did not, and how that role has changed in California over time. But the analysis of the available data has proceeded to view a single profession in isolation; for example, the relative positions--in terms of numbers and roles--of psychiatrists, social workers, psychiatric nurses, and psychologists are not considered. When the relative positions of psychiatrists and psychologists--and, in particular, the hierarchial licensing structure that exists in some States, where a psychologist can only receive insurance reimbursement if he/she is supervised by a psychiatrist--has been discussed, it has been viewed principally in qualitative terms. One needs quantification of these effects.

Any study of the effects that regulatory structures have on the various mental health professionals must confront an interesting issue of interpretation relating to the evolution of the regulations themselves. Specifically, it is reasonable to expect that "supplier pressure" exerts substantial influence on a State's adoption of a licensing structure or set of insurance reimbursement provisions. For example, a positive correlation between the existence of a direct recognition law for psychologists and the number of psychologists might indicate casuality in either direction; an interpretation that more liberal regulation leads to more practitioners

would be difficult to support fully. This problem would be most troublesome if the year for which data were being used was the year in which the law was passed. Hence, availability of data for different States for a number of years, which would permit the use of appropriate pooled cross-section, time-series econometric techniques, would make matters somewhat better. But the correct way to cope with this potential problem is to treat the existence of the laws as endogenous to the model--that is, for example, to make the existence of a direct recognition statute and the time of its enactment part of what one wants to explain.

Furthermore, studies of the effects of alternative regulatory structures should be sensitive to the fact that nominally similar regulatory programs may be implemented in different ways by different States. For example, different States may enforce the identical direct recognition statute with varying degrees of tenacity, and different HSA's may approach their regulatory functions with varying degrees of enthusiasm and expertise. Hence, in examining the effects of regulation, one would like to go beyond the formal statement of statutes and charges to regulatory bodies to measure the effectiveness of the law or regulation; but it should also be recognized that this is easier said than done.

A second project that would help us attain a better understanding of the possibilities for substitution among providers would study settings in which different professionals work--for example, community mental health centers or group private practices in which the group includes different types of professionals--and determine the allocation of tasks in such settings. Are assignments made by type of patient, by diagnostic category? Are the comparative advantages determined by profession and training, by personal characteristic, or by other factors? An example of such research is Thomas G. McGuire's recent paper, "Markets for Psychotherapy," which examines aggregate staffing patterns at community mental health centers. Focusing on the level of the organization as a whole, and not the individual tasks performed, he concludes that within the CMHC setting there appears to be considerable possibility for substitution between psychiatrists and psychologists. More work is needed on CMHC's and on the interaction of professionals in other settings.

It would also be valuable to have research undertaken on patients' perceptions of the substitutability among providers. This will be much more difficult to do, but it is important that we understand how patients choose among types of therapy and types of professionals. How important are financial considerations, perceptions as to quality of different professionals, location? To what extent do patients rely on licensing laws and insurance reimbursement provisions for "signals" as to therapists' quality? What is the nature of referral "networks" in different locations? Do members of one profession refer to mental health service providers in other professions, and to whom do nonpsychiatrist medical doctors refer patients? Are there any systematic patterns here?

Fourth, with regard to facilities, one would want information about the utilization of hospital capacity, in particular hospital beds in psychiatric units. What evidence is there of substitutability within psychiatric units among resources devoted to providing care for different lengths of treatment? Why is it the case that a therapist who tries to admit a patient may sometimes find that beds are available in the long-term unit but not on the short-term unit or that there is "space" on the 90-day unit but not on the 30-day one? How often does this happen? Are the possibilities for capacity substitution as limited as such incidents would suggest? What kind of planning would improve the allocation of resources?

Finally, what evidence is there about substitutability between inpatient and outpatient care? How is the choice between those treatment loci made? To what extent is the decision based solely on diagnostic and prognostic categories; what are the other factors entering the decision?

These are examples of items on the research agenda in the economics of mental health regulation; they are not, by any means, intended to be an exhaustive list. They illustrate the central point I have tried to make that substitutability and the way it manifests itself in mental health services is at the heart of our understanding of that area. It is, therefore, critical to the formulation of programs to regulate the delivery of mental health services, and it should guide the choice of research projects in this area.

FINANCING CARE FOR THE CHRONICALLY MENTALLY ILL: THE IMPLICATIONS OF THE VARIOUS APPROACHES

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Introduction

The problem of how to best provide services for the chronically mentally ill has once again become of paramount concern to public officials and is of increasing importance to providers (President's Commission 1978 and the Chronic Mental Patient 1978). The lack of adequate planning for the large number of individuals dismissed from outmoded State mental institutions has introduced new problems. Some of the deinstitutionalized individuals have been inappropriately placed in nursing homes, others have ended up in inferior boarding homes and hotels, and the others, undoubtedly have fallen out of sight. The inappropriate placement and care for this population reflects the institutional bias of funding programs, the inadequacy of resources for residing in the community and a confusion as to which level(s) of Government is responsible for this population.

The Federal Government has responded to the problem by having Community Mental Health Centers (CMHC) assume more responsibility. While this is an appropriate response by the public officials that support these Centers, there are serious questions as to whether this is the most appropriate method for financing the care for this population. Until the chronically mentally ill have enough resources to permit them to reside in a reasonable manner in the community, such an approach places great pressure on providers of mental health services to patch together adequate financing and once this is done to control the services the dollars can purchase.

Characteristics of a Financing Program

There are three dimensions to the development of a financing program. First, the eligible population must be determined. Next, the services offered or supported must be described. Finally, the method by which dollars are transferred from the Government to providers or individuals must be determined. This paper concentrates on the methods by which funds are transferred. Since the explicitness of the services covered depends on the financing method chosen, this dimension will be discussed throughout the paper. Before engaging in that discussion, however, it is necessary to describe the chronically mentally ill population.

A review of the literature on the chronically mentally ill reveals that there is no single definition which is used commonly and consistently in describing the population. Some use the term to refer implicitly or explicitly to those with severe and long-lasting mental disorders, e.g., chronic schizophrenia or chronic depressive syndrome. Others use it when speaking of those who require episodic inpatient care for treatment for

any one of a number of mental health problems. Still others employ the term when referring to individuals who are high utilizers of mental health services. While all of these descriptive definitions are of assistance since they contribute to the understanding of some of the several dimensions of the chronically mentally ill population, a lack of distinction can result in confusion when discussing the efficacy of specific public policy interventions in the mental health field. In order that discussion here not be obscured for lack of definition, the term chronically mentally ill will be used in this paper to refer to those who have a diagnosed mental illness which requires long-term care and supervision.

This last criterion is of particular significance in distinguishing the population to be considered in this discussion. Long-term care or supervision is indicative of the need for ongoing assistance in coping with mental illness or in accomplishing the routine tasks of life. For the chronically mentally ill these attributes are interrelated. That is, because of chronic mental illness, the population has problems associated with social functioning and daily living (Harris 1971).

Since we are again at a crossroad for deciding which direction to follow in the future financing for the concerned services, the paper will discuss the various financing strategies that are available to meet the needs of this population. The purpose of discussion is not to set forth recommendations, but rather to put forth some considerations which should receive attention before steps are taken to build upon current programs. The considerations incorporate the importance of consumer involvement and on how the various financing mechanisms impact on the consumer-provider relationships, and, ultimately, on the number, type and way services are delivered.

Current Patterns of Mental Health Expenditures: Providers and Sources of Payment

A review of projected expenditures for health care for 1980 reveals two significant findings in the financing trends for mental health. The first is that when compared to the expenditures for personal medical care, the chronic care accounts for a greater proportion of mental health care expenditures. As shown in Table 1, 1/ long-term care facilities account for nearly one-third of all mental health expenditures, while similar facility-based services account for only about one-eighth of medical expenditures.

The second interesting fact arising from the 1980 expenditure data is that the State/local and Federal Governments have assumed differing levels and types of responsibilities in the financing of mental health services. In terms of source of payment, State and local governments pay proportionately three times more for mental health care than for general medical care. While the Federal Government's share is roughly equivalent (25 percent for mental health and 29 percent for medical), a much smaller portion of its mental health dollars goes into hospital-based

Table 1. Preliminary projections of total personal medical and personal mental health expenditures for 1980 (in millions of dollars)

Payor/Provider	Hospital	Out-patient	Physician	Dentists & other professionals	Drug	Long-term care facilities	health	Total	Percent of total
A. Total Medical Care									
Federal	33,560	5,745	9,220	1,410	840	6,925	3,550	61,250	29%
State & Local	6,525	3,925	1,315	975	680	5,230	485	19,135	9%
Insurance	28,780	5,050	16,780	2,850	1,380	170	400	55,380	26%
Private	9,285	6,995	17,015	14,215	10,380	12,275	5,535	75,600	36%
Total	78,150	21,715	44,300	19,450	13,280	24,500	9,970	211,365	
Percent of Total	37%	10%	21%	9%	6%	12%	5%		
		(a)	(b)	(c)	(d)	(e)	(f)		
B. Mental Health									
Federal	1,250	1,980	1,165	50	85	2,770	315	7,615	25%
State & Local	3,450	2,600	160	35	70	2,090	45	8,450	28%
Insurance	1,130	315	2,010	120	140	70	-	3,785	12%
Private	1,860	700	2,040	180	1,040	4,870	-	10,690	35%
Total	7,690	5,595	5,375	385	1,335	9,800	350	30,540	
Percent of Total	25%	18%	18%	1%	4%	32%	1%		

(a) 10% of outpatient facilities: 40% of home health agencies.
(b) 12% - 8% psychiatrist; 4% from other GP
(c) No dentists; 5% of other professional
(d) 10% based on percentage of prescriptions
(e) 40%
(f) 10% of other

services. The proportionately large Federal expenditures for outpatient mental health services reflects the Federal emphasis on community mental health centers (CMHCs). It also is worth noting that the CMHCs have led to a rise in Federal Government spending for mental health programs relative to that of State and local governments, a phenomenon resulting from a national policy of the early 1960's which concluded that individuals with major mental illness could be best treated in community settings (Joint Commission on Mental Illness and Health, 1961).

From State Hospitals to Community Mental Health Centers

A major agenda item in the "community mental health" reform movement was the deinstitutionalization of the individuals in State mental hospitals. State hospitals had been criticized for some time for failing to help and, in some cases, contributing to the deterioration of mental patients (Rose 1979). Federal initiative in the development of CMHCs was intended to aid the deinstitutionalization process by providing "seed" funding for the community-based programs. These programs eventually were to turn to State and other sources of support for provision of services to discharged State hospital patients. Thus, the CMHCs were, in part, to serve as the agents for changing patterns of institutional care. However, the Federal initiative often created an entirely new and different delivery system with a different set of providers in charge and a different set of clientele receiving services. The psychiatrists running the CMHCs were oriented to private practices and psychotherapy in contrast to civil servants providing maintenance services in State institutions.

The CMHCs were to prevent chronic as well as other forms of mental illness by provision of services in the community and to assist in the transition of long-term institutionalized patients back to community settings. The expectation that CMHCs were to care for the deinstitutionalized, chronically ill while simultaneously developing community support systems may have been naive. The types of services required to retain in communities individuals who had never been institutionalized are quite different from those required to maintain the deinstitutionalized chronically mentally ill in community settings. The needs of this latter population for assistance in daily living makes theirs a more difficult case to handle. First, their needs are more diverse and often more intense. Therefore, if they were to receive priority in the CMHC, it is likely that they would consume a high proportion of the CMHC budget, thereby reducing the total population that could be seen. Second, many of their needs, e.g., housing and transportation, are not medically oriented. In the absence of program mandates to care for the chronically mentally ill, the understandable preference of the mental health professionals staffing the CMHCs to care for individuals with neuroses or situational problems has worked against the treatment and delivery of care to the chronically mentally ill.

The Changing Role of the State Mental Hospital

Concurrent with the Federal establishment of the CMHC program, the number of residents at State institutions began to fall at a more rapid rate. From 1954 to 1964, there was a gradual decline in residents of State mental hospitals of about 8,300 per year. From 1965 to 1975, the decline averaged over 27,000 per year nationally (Clark 1979). These trends are depicted in Table 2. Over the 25 year period (1950 to 1975) the decrease in the resident population of State and county mental health institutions has been more than 60 percent. The increasing number of admissions (also shown in Table 2) and the decrease in the average length of stay indicate that these institutions have changed their mix of services towards an emphasis on acute care, although they still must provide long-term custodial care to over 100,000 patients. Moreover, roughly two-thirds of the State hospital admissions are readmissions, suggesting a systematic breakdown in community services for the chronically mentally ill.

The shorter length of stay for those admitted to State institutions means that the composition of the "deinstitutionalized" population is changing. Patients are coming from and being returned to their communities. Since these individuals have not been institutionalized for years, it seems reasonable to assume that they can function better outside the institution than those who were institutionalized for a number of years. Also, it is less likely that they will return to an institutional setting in the community.

The changing nature of the patient population remaining in State and county institutions means that more care must be provided per patient. Nationwide, State expenditures for mental hospitals grew during the period of rapid deinstitutionalization, from about $750 million in 1958 to $4.3 billion in 1975. During the decade showing the greatest decrease in residents (1965-75), expenditures tripled (from $1.5 to $4.3 billion). The reasons for the higher costs have not been explained. The data on the number of admissions would suggest that the product being produced at the State institutions has changed. It would be worthwhile to explore how much of the increase in cost can be associated to this, as well as to higher quality care and the upgrading in staff and facilities.

In any case, the trend in State expenditures for mental institutions contradicts those who argue that States opted for deinstitutionalization to save money and to disregard the needs of their mentally ill patients (Bassuk and Gerson 1978). 2/ Some States initially may have experienced savings, since deinstitutionalization may have permitted them to shift the cost of care to other payers. However, in the short run, deinstitutionalization can be expected to raise costs, particularly when the same services are provided in the communities. 3/ These higher costs are spread over more parties: patients, families, communities, State governments and the Federal Government. Of course, if the amount of services were to be lowered or if services were to be provided more efficiently, total costs could be reduced. In the short run, the physical plant and much of personnel must be paid for independently of the number of patients served. Over a longer term, deinstitutionalization may raise costs because of the loss of the economies of scale in large State hospitals.

Table 2. Number of resident patients, total admissions, net releases, and deaths, State and county mental hospitals, United States, 1950-1975

Year	Number of Hospitals	Resident Patients at End of Year	Admissions	Net Releases	Deaths
1950	322	512,501	152,286	99,659	41,280
1951	322	520,326	152,079	101,802	42,107
1952	329	531,981	162,508	107,647	44,303
1953	332	545,045	170,621	113,959	45,087
1954	352	553,979	171,682	118,775	42,652
1955	275	558,922	178,003	126,498	44,384
1956	278	551,390	185,597	145,313	48,236
1957	277	548,626	194,497	150,413	46,848
1958	278	545,182	209,823	161,884	51,383
1959	279	541,883	222,791	176,411	49,647
1960	280	535,540	234,791	192,818	49,748
1961	285	527,456	252,742	215,595	46,880
1962	285	515,640	269,854	230,158	49,563
1963	284	504,604	283,591	245,745	49,052
1964	289	490,449	299,561	268,618	44,824
1965	290	475,202	316,664	288,397	43,964
1966	298	452,089	328,564	310,370	42,753
1967	307	426,309	345,673	332,549	39,608
1968	312	399,152	367,461	354,996	39,677
1969	314	369,969	374,771	367,992	35,962
1970	315	337,619	384,511	386,937	30,804
1971	321	308,983	402,472	405,681	26,835
1972	327	274,837	390,455	405,348	23,282
1973	334	248,518	377,020	387,107	19,899
1974	323	215,573	374,554	389,179	16,597
1975	313	193,436	376,156	384,520	13,401

Note: For all years net releases were obtained by summing the resident patients at beginning of year and admissions and subtracting from this deaths and resident patients at end of year.

Sources of data for resident patients, admissions and deaths are as follows:

1) 1950-1955 and 1960-1964-NIMH, Patients in Mental Institutions;
2) 1956-1959-Mental Health Statistics, Current Reports. Provisional Movement and Administrative Data - Public Mental Hospitals 1961 and 1962. Table A;
3) Resident Patients End of Year 1965-1973-Statistical Note 112, Table 1;
4) Admissions 1965 and 1966 - Mental Health Statistics, Current Facility Reports, Provisional Patient Movement and Administrative Data - State and County Mental Hospitals, United States, July 1, 1968-June 30, 1969, Table 4;
5) Admissions, 1967-1968-Statistical Note 60, Table 5;
6) Admissions, 1969 - Statistical Note 77, Table 5;
7) Admissions, 1970-73 - Statistical Note 106, Table 4;
8) Deaths, 1965-1973-NIMH Current Facility Reports or Statistical Notes showing Provisional Data for State and County Mental Hospitals for each respective year.
9) 1974-Statistical Note 114, Table 1.
10) 1975-Statistical Note 132, Table 1.

Source: Division of Biometry & Epidemiology, NIMH

Studies are still not conclusive as to whether the actual cost of caring for the deinstitutionalized population rose or fell. To appropriately calculate this would require data on the characteristics of the deinstitutionalized population, where they went, what services and what income payments they received. Unfortunately, data on this displaced chronically ill population that moved out of institutions in the 1960's and early 1970's are not comprehensive. Indeed, a good deal of contemporary research has involved attempts to reconstruct the pieces of the deinstitutionalization puzzle in order to better trace what has become of that population. Nevertheless, with the continual movement of individuals out of these institutions, prospective studies are still possible and worthwhile. In doing such studies, the investigators should carefully identify and separate the services received from the sources of payments. This will allow an assessment of how deinstitutionalization alters the financial burden.

The Sojourn of the Chronically Ill Mental Patients

In acquiring the necessary care in the community, the problems faced by the chronically mentally ill are not very different from those of the physically handicapped or elderly. All of the chronically ill need a wide range of services and no single agency in the community bears the responsibility. As early as 1956, the Commission on Chronic Illness in "Care of the Long-Term Patient" stated: "...The task is formidable because of the wide range in needs of long-term patients, the multiplicity of ways through which care is financed, conflicting interest and pressures, the existence of outmoded facilities, and other factors... Advanced illness is everyone's problem and by the same token, on one's clear responsibility..." (Commission on Chronic Illness, 1956). This was not an issue for the severely chronically mentally ill in the 1950's. The State mental hospital was responsible for both financing and delivering the whole range of services. Deinstitutionalization brought with it the problems of financial and delivery system fragmentation.

In the market place, consumers have to deal with purchasing a wide range of services. The public social service system tries to replicate this through a myriad of categorical programs. A knowledgeable and rational consumer needs time to sort out good and bad or helpful and unhelpful programs. To effect the transition a population that has been institutionalized for a long period requires dollars and personnel to assure that medical care, social support, and living arrangements are adequate (Peterson in The Chronic Mental Patient, 1978). With these complex conditions as a backdrop, it is not surprising that the results of closing the State mental hospital systems varied. There are case studies that show that the transitions to noninstitutional settings went well, and there are studies of failure (Ahmed and Plog 1976).

One way of reducing the "transition costs" is to reinstitutionalize. While no national studies document where the displaced chronically mentally ill have gone, the evidence shows that deinstitutionalization

was a boon to the nursing home industry. Following the passage of Medicaid, the growth in the number of nursing home residents with mental disorders rose by an amount greater than the reduction in the residents of mental institutions (Rose 1979). Without adequate incomes, but with Medicaid eligibility, it would not be surprising to find a high proportion of the deinstitutionalized to have been inappropriately placed. Board-and-care houses, and old hotels, also become a common next address for the dismissed mental patient. The movement of former mental patients to these facilities was encouraged by the passage of Supplemental Security Income (SSI) legislation in 1972, which provided some additional income for discharged mental patients. The inadequacy of the SSI payment, which may often be the only source of income for this population, did not permit them to acquire adequate housing.

In New York and California, the growth of proprietary homes to care for the mentally ill has been portrayed as another form of "reinstitutionalization," fraught with abuse and high profitability. Owners of these facilities typically retained SSI checks and gave residents "spending money." There are also patterns in the overuse of tranquilizers in such settings, a practice which makes individuals dysfunctional whether they reside in the community or in an institution (Rose 1979).

As indicated previously, the effectiveness of the CMHCs in assisting with the reduction of inpatient residents from State institutions appears to have fallen short of the programs intention to reduce the use of mental hospitals and provide a coordinated system of care. According to the GAO, only 3.8 percent of CMHC patients were referred by State hospitals and "...in general the CMHC program has developed apart from the public hospital system" (Comptroller General 1977). These GAO statements also could be used to show that the State hospital system may not have allowed the CMHCs to take care of their patients. That is, because they controlled referral and treatment mechanisms, State mental health professionals had the capability to make a self-fulfilling prophecy in predicting that the chronically mentally ill would not be taken care of in a community mental health facility.

While a community-based program as currently constructed is more difficult to manage and may be more expensive, public support for such a program still exists. Most recently, the President's Commission on Mental Health set as its first goal for the chronically mentally ill to keep the number of individuals in need of institutionalization to a minimum. This report also recognized that Federal, State and local governments must coordinate their efforts to improve the chronic mental health delivery system. These actions are incorporated into NIMH's recent Community Support Program which has mounted service demonstration projects to improve the services for chronically mentally ill adults who do not need to be in nursing homes. Projects funded by this program have consolidated State and local financing and administration. Such a program has two critical advantages: it does not place the priorities of the various levels of government in conflict and it links the State and local mental health delivery systems.

Two notes of caution, however: the attempts to develop services for the chronically mentally ill must not isolate this population from the mainstream of mental health and social delivery systems. Their integration in larger systems that treat the less severely ill will help prevent abuse and make an adequate level of funding more possible. Secondly, the case-managed system envisioned does not increase the financial resources and maintains the professional in the pivotal position of determining who will get what services.

Financing Community Care

Contemporary studies which document the plight of the deinstitutionalized chronically mentally ill have borne out one tenet of those who sought a system of care in the community. These reformers contended that by having former patients live in the community, abuses would become more obvious to the rest of the population and consequently, pressures would mount to correct the abuses. This dynamic has indeed been triggered--and in a much shorter time period than it took for the recognition of abuses occurring in State mental institutions.

The failures which characterized the State institutional model, and the problems encountered subsequently in deinstitutionalization, indicate that we are once again in a period of transition. The Community Support Program presents itself as one promising way of correcting the service shortfalls of the CMHCs in addressing the needs of the chronically mentally ill. However, prior to making a public policy commitment to move down this road, it may be worthwhile to consider whether the role of the chronically mentally ill patients should be altered, vis-a-vis providers in determining the services provided.

The changing nature of the chronically mentally ill population provides impetus for re-thinking the relative roles of consumers, providers, and governments in making services accessible. The new direction of the mental health system are not being forged solely for benefit of an elderly population which has been displaced from an institution after several years or decades of custodial care. The system also will be intended for younger individuals who have spent only brief--if any--time in institutions. This population will have community supports still intact and can be predicted to be able to cope with many aspects of living more adequately than the former group. To some meaningful extent, this new population has given evidence of its desire to participate in determining its own future by forming self-help, social/recreational and advocacy organizations. Clearly, this is the type of independent decisionmaking those structuring the new community-based approach should want to encourage. In fact, perhaps more than any other criterion, the one which should be foremost in evaluating future alternatives should be the extent to which an option recognizes the chronically mentally ill's right and ability to live as independently as their level of ability allows.

While this basic tenet doubtlessly appears obvious to those who are concerned with the mentally ill, it is not so readily obvious in the programs typically proposed for the chronic population. On the contrary, there is often an underlying assumption that decisions regarding appropriateness of treatment and selection of basic services are best made by the providers who also control resources. In other words, society makes the decisions it thinks individuals would make if they had a pre-determined level of competence. The State hospital system stands as a primary example of this type of thinking. In discussions of future financing options, attention should be given to the extent to which the exercise of individual preference can be maximized.

In the next few pages, the three major ways that funds are transferred will be briefly discussed. The discussion will begin with categorical service programs, moving on to a benefit (voucher or insurance) program and then to a cash transfer system. The role of the consumer increases as we move along this continuum of options.

Categorical Service Programs

Greatest control for providers exists with a categorical service program system. Funds go directly to providers either directly from the Federal Government or from lower levels of government. The types of services to be provided, as well as clients' eligibility to receive services, are determined by regulation and/or negotiations between the funding service and the providers. The providers, in turn, determine the mix and quality of services offered to those who enter the system. Individuals have little control over what is offered to them. The rationale for such a program is that the public wants individuals to receive particular services which are best delivered in a specific manner.

The potential problems of categorical service programs are well known. Differing eligibility requirements among programs which offer different, but equally needed services, can result in service gaps. Competition for clients necessary to justify funding continuation may result in costly duplication of efforts. At the same time, there is no real market test as to whether the service and mode of treatment are preferred since clients do not have the option to go elsewhere for the services desired. Finally, focusing on those marginally in need in order to ensure a high success rate may lead to the neediest clients being excluded. Problems notwithstanding, however, the categorical approach persists.

The experimental Community Support Program, for example, maintains the categorical programming strategy. It does attempt to address some of the major shortcomings of existing systems by consolidating diverse funding into one package and, thus, reduce the potential for developing competing or overlapping systems. Moreover, it adds a case manager who is to guide clients through the array of required services. While both of these elements may prove to be beneficial additions, they do not alter the basic premise of the categorical approach. Decisions regarding what services are needed and who is to receive them are still made by the provider. To the extent that the services most needed are not medical, but basic living and social support services, the potential for an inappropriate matching between services provided and need persists and, probably, increases.

Benefit Program

A benefit program could take the form of a voucher system or a social insurance program which provides for a specific set of services. Such programs typically have more governmental and consumer involvement than a categorical service program and correspondingly less control is vested in the provider. These programs do restrict the consumer to a prescribed set of services. While the allowable services might be broadly defined, a benefit program for this population might be unwieldly given the number of services and providers that should be included. Moreover, given that the prices to the consumer of the insured services are lowered relative to other prices, there is likely to be overconsumption of the insured services unless benefits are tightly controlled and regulated. Nevertheless, benefit programs offer much more latitude to the consumer than do categorical programs. To the extent that there is more than one provider, consumers can choose where they wish to receive the service.

Cash Transfer Program

A cash transfer program obviously allows for the exercise of the greatest amount of autonomy. Government's roles in cash programs are to determine eligibility and to decide on the amount of funds to be transferred to each individual. The individual is then free to choose the types and quantities of services required.

Central to the discussion of cash transfers to the chronically mentally ill is the concern regarding consumer competency. The suggestion that cash be given instead of certain services no doubt causes concern for many. However, the idea is far from incompatible with recent reform movements in the mental health area. The emphasis on developing a range of alternative services outside institutional settings recognizes that the chronically mentally ill have varying levels of need for care and supervision and are indeed a varied population in terms of their competencies. Consequently, it could be argued that rather than expressing concern about incompetency, concern should be focused on determining where on a continuum between competence and incompetence an individual lies and what degree of decisionmaking aid is required to maximize individual choice. Such aid could be used to influence, aid, or force individuals to make decisions that society thinks they would be making if the individuals had the competence of those with absolute consumer sovereignty (Thurow 1972). The role of the person who provides the decisionmaking aid would not be unlike that of the case manager in a service program model. In a cash program, this individual also could have the responsibility for ensuring that partially competent people are not exploited by others.

To suggest that cash transfers alone would alleviate all of the problems of the chronically mentally ill would be to oversimplify a complex social concern. The population still would require health insurance and other expensive benefits such as rehabilitation, the need for which is not spread evenly across the chronically mentally ill population. However, many of the goods and services the chronically mentally ill

need to live in community settings could be acquired through cash payments, in particular, their shelter and food. Currently, the incomes of the chronically mentally ill are quite low, often being just their SSI payment. With such an income, they are unable to locate suitable housing and acquire other basic amenities. A financing system in which cash payments form the base of support and then is supplemented by vouchers or categorical service programs for the expensive, clearly defined services for which the need varies is worth considering.

Conclusion

In caring for the chronically mentally ill, the delivery system has shifted from a system in which the case manager (the State mental hospital) has complete control of service dollars to a system with no case manager, but decisions on resource allocation have stayed in the hands of the providers (the CMHC). The change has been described as:

> "...one of type rather than kind - one in which the same basic types of services would be delivered through a new community-based delivery system. Put another way, the nature of the change was predominantly old, medical defined, inpatient services to new outpatient practices. The hospital came under attack as if it somehow existed independently of the profession that managed it, proclaimed its virtues and supervised its decline, while always rationalizing its existence - a process that allowed for continued medical control." (Rose 1979)

In a medical model, it is not surprising that the chronically mentally ill would not receive first priority. Their needs go far beyond medical care and medical intervention alone may not produce noticeable client improvement.

This paper has described a number of reasons for reconsidering the current categorical funding approach. It suggests that the chronically mentally ill be allowed to have a greater impact on what services are provided. This population potentially needs a wide range of services; the type and quantity vary from individual to individual. While the paper has described the three ways that funds may be transferred from the government, they need not be considered or handled as mutually exclusive, and in fact, there are good reasons to combine a cash program with a voucher or categorical service program.

A financing system which allows the chronically mentally ill more control over resource decisions warrants thorough consideration. Eventually, society will have to decide whether the "cost" being paid for professionals to decide what is right for this population exceeds the "cost" for letting the chronically mentally ill have the right to be wrong.

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THE SUPPLY OF MENTAL HEALTH MANPOWER

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Introduction

During the past several decades dramatic changes have occurred in the methods of treating mental disorders, public attitudes toward mental illness, and total dollar resources devoted to the treatment of the mentally ill. In the coming decade it appears likely that further changes will occur, with new types of care and treatment being developed and provided to ever more people, paid for as a fringe benefit or through a comprehensive national health insurance program. What are the implications of these projected changes for public policy with respect to the financing and provision of mental health care and more specifically to the financing and supply of personnel who will provide this care? To respond to these questions, we need a better understanding of how the mental health services sector operates and how it evolved. Building on this knowledge, we will be in a better position to anticipate the future and, more important, to assess the impact of alternative policy proposals likely to affect the supply of services.

The purpose of this paper is to identify major research questions that constitute an agenda for research on mental health personnel. The discussion is organized as follows. First, I attempt to sketch out the evolution of the mental health "industry," paying particular attention to its manpower dimension and raising a succession of questions about the dynamics of its growth; in the process, a host of research issues is raised. Second, the current dimensions of the pool of mental health manpower are described and new ways of organizing this information are proposed in order to facilitate research on a variety of topics. The third section discusses the growth of and changes in the mix of mental health manpower and then offers suggestions for research that would illuminate these changes. Next, there is a discussion of needed research on the possible causes of changes in the relative earnings position of mental health personnel, specifically psychiatrists whose real earnings position has deteriorated recently in both absolute and relative terms. Finally, questions are posed arising out of the emergency of "pop" therapies in the early 1970s.

Before proceeding, some discussion of the definition of the mental health sector is required. For purposes of this paper, I take a broad view of what constitutes the mental health services sector and mental health manpower. The narrower view is reflected in the description of "The De Facto US Mental Health Services System" developed by Regier, Goldberg, and Taube which is more fully described elsewhere.[1/] This system focuses on that part of the population suffering from mental disorders which is estimated to be about 15 percent of the U.S. population. A broader view encompasses, in addition, those people who experience "the more ubiquitous problem of living and emotional symptoms that may affect up to 85 percent of the population." Since these kinds of problems and symptoms often require treatment and hence

affect the demand for mental health services, it is important to recognize this relationship. Moreover, this broader definition encompasses a larger more diversified group of providers of mental health services. While this makes the task of defining the field more difficult, it permits the exploration of certain issues that would otherwise be foreclosed.

It should also be noted that this paper takes as its starting point the Task Panel Report on Mental Health Personnel, submitted to The President's Commission on Mental Health.2/ That report surveys what is known about the mental health personnel system and, in addition, reviews some of the major issues, centering on the supply, distribution, utilization, and training of mental health personnel.

The Growth of the Mental Health Sector

Here I attempt to sketch a framework for analyzing the evolution of the mental health industry and the role of manpower in its development. This sketch represents a series of hypotheses that need to be examined in much greater detail. It also serves to help sharpen some of the other research questions taken up in the remainder of this paper.

One of the striking things about the mental health industry is its rapid growth during the 20th century, particularly the shift in the focus of care and treatment from the home and family to institutions and specially trained personnel.3/ This is not an uncommon pattern for the service industries. But what explains the particulars of this shift for the mental health services industry? The growth and evolution of the industry would make a useful topic for economic research. The following are some preliminary ideas concerning the industry's growth; they are in effect, a set of hypotheses worthy of testing.

Over the past 75 years, household demand for mental health care and treatment through formal (nonhousehold) organizations has increased for a variety of reasons. First, families and friends found it progressively more difficult to care for the mentally ill in the face of increased urbanization, the emergence of the nuclear family, diminished networks of helping relatives and friends owing to increased mobility, increased labor foce participation by women, and so on. Second, the relative costs of providing treatment emerged. Third, the public increasingly recognized that mental health problems were complex and required care and treatment that could not be provided by amateurs but had to come from professionals who were committed to their tasks and concerned with using proven techniques. Fourth, technological advances in treatment made formal treatment more effective--especially drugs. Fifth, the growing prevalence of health care insurance lowered the relative cost to the patient of formal care relative to informal, home care. Thus, a gradual and permanent shift of demand toward and into the market sector took place. The relative importance of each of these factors in the past, and their likely future importance deserve study.

On the supply side, we had a similarly interesting set of developments. Through research, new methods of treatment and care were developed. Initially, these advances grew largely out of the efforts of practitioners to improve the treatment of the mentally ill, whether in institutional or

noninstitutional settings. Mental hospitals, in particular, provided an ideal environment for spawning these advances: doctors sought to provide more effective care and treatment; patients were readily available for experimentation; and the effects of experiments could be monitored over extended periods of time at low costs, thus, new treatments were developed as a by-product of regular care and treatment. Advances in drug therapy grew out of basic research that subsequently found application in the mental health sector, initially in institutions were patients were confined, and later more generally. The emergence of community mental health centers was a different type of advance, partly organizational and partly a new mode of treatment. These changes, taken together, can be viewed as representing a new and improved production function for care and treatment. The sequence of these developments and the factors giving rise to their need to be developed in detail, with special emphasis on the role of economic forces.

Over the same period of time, the pool of highly training mental health personnel expanded steadily. This had several origins. One was society's general concern for enhancing human capabilities through education, achieved partly by mental health personnel. The emergence of well defined professional groups lead to the development of standards of training practice, and the like that soon become dominant in affecting the flows of new people into the field. At the same time, the economic rewards offered by the field were growing, thereby inducing more entry. And finally, recognition by society of the need for mental health care and treatment led to greater public support of the sector, specifically through the public funding of mental health facilities and treatment centers as well as training programs for specialized personnel in the field. Why did this subsidization begin and what were its effects on the production of mental health professionals? By how much did these standards serve to enhance the quality of treatment, or did they largely benefit mental health professionals? How rapidly were the incomes of mental health professionals rising and how much of these increases can be attributed to the growth of demand, increased subsidization of training, and restrictions on supply through the imposition of standards, as noted above? And what led to the assumption of these costs by society?

To sum up, during the past 50 years the professionalized providers of mental health services became increasingly abundant, the services they had to offer became more effective, and the facilities to provide these services grew rapidly. The net effect, I hypothesize, was both to reduce the quality-adjusted relative price of care and treatment and to increase the quantity of services available. Combined with the increased demand for treatment provided through the mental health sector, the quantity of mental health services exchanged through the market steadily expanded.

The extent to which these numerous hypotheses hold up can only be determined by careful study of what happened since the beginning of this century. This kind of research, which amounts to an economic analysis of the evolution and development of this sector, will not be easy to do because the information needed is not well organized and, indeed, some of it may not exist. Nonetheless, this reseach can inform us about the dynamics of the market for mental health care and treatment and the unique role of mental health manpower in the industry's development.

Mental Health Manpower: What Is It and How Much Exists?

The preceding discussion skirted the question of defining mental health manpower. Indeed, it suggested that the definition must be broad and flexible to account for the shift of activity to the "market" that has led, in turn, to the growing professionalization of mental health manpower. While those who earlier provided care and treatment in home and similar settings were not labeled as providing mental health care or classified as mental health personnel, that is what they in fact were. Hence, our next research task is to define more precisely mental health manpower and close substitutes to it.

How large is the mental health manpower pool and what kind of personnel does it contain? How fast is it growing? To what extent is the definition of the pool being widened to include other types of personnel? There are many difficulties in determining how many people are employed to provide particular kinds of services. This is especially so when the services are not easily defined, the recipients are often difficult to identify (general practitioners often provide mental health care along with treatment for physical ailments), and the services are provided in scattered institutional settings and usually on a fee-for-service basis. The task is further complicated when groups other than those traditionally identified with the sector can and perhaps increasingly do provide services that are close substitutes. All of these conditions apply in the mental health manpower area. Despite these problems, some limited information is available to help develop a profile of the manpower pool.

The most straightforward approach is to identify people from those occupations that serve the mentally ill and perhaps also those with lesser but related afflictions. The people in what might be called "key" mental health professions include psychiatrists, psychologists, nurses, and social workers. Their numbers totaled about 1.1 million in 1976.[4/] If the count is restricted, however, to personnel who actually work in the mental health field, the total is reduced to 134,000; this includes all psychiatrists and psychologists, 25 percent of all social workers, and 5 percent of all nurses. Neither of these sets of figures is highly illuminating, the first because it is too broad (not everyone works in the mental health field) and the second because it is too narrow (people from other occupations also assist the mentally ill). They do, however, provide upper and lower bounds to the range of estimates.

Another approach is to identify people by the nature of their employment in the mental health industry. Again, the data are sketchy. However, we do know that the number of full-time equivalent personnel employed in mental health facilities, including community mental health centers and both State and county mental hospitals, has been estimated at about 423,000 in 1976.[5/] Included in this total is a wide range of personnel--from psychiatrists and other physicians on down the occupational ladder to patient care staff and administrative-clerical-maintenance personnel. Thus, we have not only mental health and general health professionals, but also allied health personnel, paraprofessionals, and supporting administrative, clerical and maintenance personnel. The focus on mental health facilities excludes all those personnel who work in other settings that are not explicitly described as mental health facilities. How many people from each of these classes of

personnel work in the mental health industry but not in mental health facilities remains unclear. Nor is it clear how many "other related personnel," including indigenous healers, self-help group leaders, and volunteers also provide mental health care and treatment.6/

Still another approach to counting the actual number of mental health workers combines the several approaches just discussed. The purpose is to produce a cross classification of people employed by occupation and sector within the industry. Such an arrangement of the data is far more revealing. It can indicate not only what combinations of occupational skills are used to provide particular services (as defined by the sector), but also the range of sectoral activities engaged in by people with similar occupational skills. The resulting grid is shown as Figure 1. The columns of the grid utilize the treatment sectors developed by Regier, Goldberg, and Taube in their characterization of "The De Facto US Mental Health Services System." I have added to it an informal treatment sector to encompass care and treatment provided in informal contacts by family and friends. The rows show the broad categories of personnel that provide the treatment offered in each of these sectors. In addition to the usual groups, I have included providers in the information sector, namely "family and friends." In principle, we could identify the number of people in each of the cells who supply mental health services.

There are several possible variants of this grid. The narrowest would be confined to the care and treatment of people with "mental disorders." It would exlude the "informal" sector and the providers described as "other related personnel" and "family and friends." Presumably, this grid would be the easiest to complete of the several possible grids because the treatment and care of people with mental disorders is better defined and hence more easily measured. A broader variant would encompass all mental health activities, as reflected by the definition of "mental illness" provided earlier. This enlarged grid would capture at least some of the services provided by "other related personnel," a growing group that offers various forms of less conventional individual and group therapy. Most of this treatment would fall into the "human services" treatment sector. A still broader variant would include all mental health care and treatment irrespective of where it is provided or who provides it. This would encompass the home treatment sector and include the provider group of family and friends.

There are obvious difficulties in attempting to complete these grids even at a single point in time, let alone at several different points in time. One important reason is that many types of personnel are not fully occupied in providing mental health care and treatment. To the extent that people divide providing mental health care and treatment. To the extent that people divide their work activity between, say, mental and general health, the entries could be based on full-time equivalents. In principle, at least, such informa... should be obtainable.

It is easy to propose a new classification scheme. How useful it might be is another question. I believe, however, that the description of "The De Facto US Mental Health Services System" has been illuminating in indicating the scope and dimensions of the mental health services sector. Comparable classifications and mental health services personnel would be

Figure 1

Classification of Mental Health Services Personnel By Occupational Attachment and Treatment Sector Providing Mental Health Treatment

Occupational Attachment	Specialty Mental Health Sector	General Hospital Inpatient/Nursing Home Sector	Primary Care/Outpatient Medical Sector	Human Services Sector	Informal Sector	
Special Mental Health Professionals						
Psychiatrists						
Psychologists						
Psychiatric Nurses						
Psychiatric Social Workers						
General Health Professionals						
Physicians						
Nurses						
Others						
Allied Mental Health Professionals						
Support Personnel (Admin., Clerical, Maintenance)						
Other Related Personnel						
Family and Friends						

equally illuminating. While such classifications do not provide answers to interesting analytical questions about how labor markets operate, the information they contain can suggest questions that might not otherwise be asked. For example, what explains why certain combinations of labor inputs are used in one subsector and not another? Are these differences explained by the nature of the skills required to perform the tasks undertaken in that subsector? Or does the structure of relative wages explain why these particular combinations of people are employed? Another use is to help evaluate questions about the adequacy of the current stock of manpower. How many people are in a particular cell? If demand were to expand, how many people with similar skills might be drawn from other cells to help provide the needed services? How many people are being trained with particular skills and will augment the present stock of personnel? In short, an improved data base will open up new possibilities for answering interesting questions about mental health personnel.

I strongly urge the collection of more comprehensive and current data on the occupational and sectoral attachment of mental health personnel. To the extent possible, efforts are needed to construct similar grids for prior years so that we can see more clearly changes in the size and composition of the mental health manpower pool. What hope there can be for obtaining the data needed to fill out the mental health services personnel grid remains unclear. I suspect that some of the needed data are available. And the discussion here may lead others to fill in some of the blanks. Or better, it will alert those who plan to collect data through surveys or other means to try to obtain the kinds of information suggested by this grid. It must be remembered that the collection of data is not an end in itself. And while the task of data collection may seem futile to some, such data can help to generate new questions and provide the groundwork for subsequent analyses that try to respond to these questions.

The Changing Mix of Mental Health Personnel

A distinguishing feature of any rapidly growing sector of the economy is the concommitant shift in the mix of personnel. Rapid growth usually implies new production technologies that require changing the mix of labor, capital, and other inputs. At the same time, new less expensive types of labor (and capital) are substituted for traditional types of workers. And in some cases, special efforts are made to augment the supply of labor needed by growing sectors of the economy. All three of these developments would seem to help account for shifts in the composition of mental health personnel over the past decade or more.

How did the mix of manpower change in recent years? From 1965 to 1976 the pool of professional mental health personnel by discipline--including psychiatrists, psychologists, social workers, and registered nurses--increased by over 50 percent. However, there was considerable variation in the expansion of these groups, with the number of psychiatrists increasing by 43 percent, nurses by 60 percent, social workers by 67 percent, and psychologists by 78 percent.[7] The changes are even more dramatic in mental health facilities where total professional patient care staff--psychiatrists, psychologists, other physicians, social workers, registered nurses, and other mental and physical health professionals--more than

doubled from 1968 to 1976. Again, the increases differed markedly. Other physicians increased by 23 percent, psychiatrists by 55 percent, registered nurses by 62 percent, social workers by 165 percent, other mental health professionals by 182 percent, and psychologists by 193 percent; physical health professionals who were not even counted in 1968 increased dramatically and were almost three times as numerous as other physicians in 1976.[8/]

Even more revealing information would come from the inspection of the various grids mentioned in the previous section. With the availability of these grids for several different years, preferably well spaced, we could begin to get a fuller picture of the compositional changes that have been occurring. The patterns that emerge will require explanation and analysis.

Of particular interest is the impact of new advances in knowledge and practice that we can summarize as reflecting changes in the production function for mental health care and treatment. These shifts have involved various degrees of change in the mix of facilities (mental hospitals, community care facilities, etc.), materials used to provide care and treatment (drugs, etc.), and personnel. Moreover, there have been changes in the mix of personnel (MDs, PhDs, MAs, BAs, and those with less than BA degrees).

What has been the effect of technological advances on labor requirements in the mental health services industry of shifts and changes in the production function? Can we identify discrete changes in treatment and determine how the mix of labor inputs changed as a result? How fixed was the new mix of labor inputs? And how fixed was it compared to the old mix? To be more specific, how did the shift away from institutional care and treatment to the community mental health concept alter the mix of labor requirements in the 1960s and 1970s? To what extent were the changes in labor requirements anticipated? If they were not, what explains the disparities between anticipated and actual requirements, both by level and mix?

It should be noted that these advances or shifts in production functions highlight in another way the difficulties of arriving at any tight definition of mental health manpower. The demand for new and different types of personnel to provide new kinds of care and treatment necessarily forces a redefinition of what constitutes mental health manpower. As an example, some of the personnel now providing mental health services through community mental health centers would not, in view of their background and training, have qualified perhaps even a decade ago for inclusion in the then current definition of mental health services personnel. Thus, technological change led to a redefinition of mental health manpower. Changes occur in the other direction, too, as exemplified by the determination that many of the mental disorders once the province of psychiatrists are now viewed as physical problems best dealt with by the general health sector. This has presumably reduced the demand for psychiatrists.

Another element in the explanation of changes in the mix of mental health manpower is the relative prices of the different types of personnel utilized in the industry. As changes occur in the relative prices of different types of labor used in the production of mental health services, there are incentives for both producers and consumers to substitute less costly for

more costly types of labor. We know little about these changes; indeed, it is not clear that anyone has assembled and examined the prices of the different types of labor employed in this sector, much less compared these prices over time or modeled the processes that determines them. And yet, the likelihood seems great that at least some prices have changed and led to substitutions of one type of personnel for another type.

Changes in the mix of manpower are also induced by shifts and twists in the production function. These changes alter the relative costs of different kinds of care and treatment. The extent to which costs are altered depends heavily on whether the changes require a relatively fewer or more highly skilled trained personnel. What kinds of effects have resulted from the introduction of new types of care and treatment that economize on relatively scarce and expensive types of personnel? Does the community mental health care program represent such a case? If so, what kinds of changes in personnel mix have resulted? How have these changes affected costs and hence the quantities demanded of care and treatment? If there are proportional decreases across skill-training levels in the amounts of labor required, then clearly the costs of mental health services will fall. Other things being equal, this will lead to the adoption of the new approach and the displacement of existing approaches. But to the extent that new advances require the use of less skilled-trained personnel whose prices (wages) are lower, the costs of treatment will fall even more. This in turn will lead to an increase in the quantity of mental health services purchased in the market. On the other hand, declining costs may lead to shifts in demand for more costly treatment technologies. This will produce still other effects, leaving it unclear how costs will change.

What we are really talking about here is the short and long run substitutability of different types of labor for each other and for capital inputs in response to changing relative prices of that labor and to alterations in the technology of care and treatment. To the extent that labor substitution is relatively easy, suggesting perhaps that the skills-training may not be all that different among the different types of labor, there can be relatively smooth and rapid accommodation to change. But to the degree that labor is not easily substitutable, there may be "shortages" and other bottlenecks that become the subject of public attention and policy. This gives rise to questions about the speed of adjustment in the labor markets, how long it takes to train and assimilate additional people into the different skill-training categories and to draw already trained personnel from one sector to another. We know much less about the second than the first of these two questions. And yet, we should be able to learn more, based on the experience of the past decade, about the spread of adjustment when it involves training new people.

The Earnings of Mental Health Services Personnel

Just as the grid discussed in the previous section can indicate changing patterns of utilization of different types of mental health personnel in the several treatment sectors, it can also provide a basis for organizing data on the earnings of personnel in each of the cells. While one might expect a considerable amount of stability over time in the pattern of relative earnings among these different groups, there are also likely to be some surprises.

One surprise is the dramatic change occurring in recent years in the relative earnings position of a key occupational group in the mental health field, namely psychiatrists. Over the period 1970 to 1977, psychiatrists experienced the lowest increase--21 percent--in average net income among the seven major medical specialty groups.9/ In fact, the real income of psychiatrists fell by 23 percent, an unprecedented change over such a short period for any major professional occupational group. What accounts for this sharp decline in a period when the real earnings of other specialties, excluding only general practitioners, was being maintained and in some cases improved?10/

There are two approaches to answering this question. One approach is to examine the labor market for psychiatrists within the context of the market for physicians. Considerable research has been done on the labor market for psychiatrists. The other approach is to examine the demand for the services of all mental health personnel and how changes in the composition of demand have affected the derived demand for psychiatrists vis-a-vis other types of personnel. There may have been a substitution of other less highly trained, less well-paid personnel as treatment methods changed to become less intensive in their utilization of manpower from this specialty group. In addition, the high costs of treatment (fees and time), combined with little or no change in real family incomes, may have accentuated the shift to other less costly methods of treatment and thereby increased the substitution of other personnel.

The labor market approach is useful for examining the link between all physicians and our group of interest, psychiatrists. The observed decline in the relative earnings position could be explained by a relative shift in the supply curve for psychiatrists. For example, the flow of people into the field could have increased relatively in the 1970s because of a more favorable earnings position for psychiatrists in the 1960s that induced many young people to enter psychiatric training at that time. In addition, the more abundant public funds to support training in this field could have induced greater numbers of entrants. At the same time, there may have been shifts in demand, which if they were less strong than those in supply, would help explain what happened. For example, because of changing tastes, the high costs of conventional treatment, and the availability of less-expensive alternative treatments, the demand for psychiatrists could have grown more moderately than supply. The research task is to sort out the strength of those different possible forces affecting supply and demand.

There are several ways of examining this labor market. One is a familiar supply-demand framework of the kind alluded to above. Another is a variant of this based on a recursive model that allows for delayed responses of supply to changing economic conditions. For example, new entrants respond to higher economic returns but must complete long years of training before their services actually become available in the market. Such a model produces oscillations in supply that can give rise to systematic increases and decreases in economic returns.11/ Still another approach is a human capital model which portrays people as responding to changing rates of return to investment in professional training. This requires comparing the present value of these expected costs of training (including the value of time spent in training) with their benefits (the additional income such

training will generate).12/ It would appear that the rate of return to potential entrants into psychiatry has declined, leading to a subsequent reduction in the number entering training and setting up the possibility of there being too few psychiatrists a decade or more hence.

The market for this specialty group vis-a-vis all personnel in the mental health field requires an understanding of the changing demand for different kinds of labor resulting from new treatment techniques, both those that evolve out of the mental health field (e.g., the concept of community mental health treatment centers), and those that spring up around the fringes of the field (e.g, popular forms of psychotherapy, such as Gestalt therapy, transactional analysis, etc.) and are carried out by people who do not have the credentials required for "entry" into the traditional mental health services sector. This is a more complex analysis for it requires a much broader base of knowledge and data to capture the nature of the substitution of other personnel for the traditionally used personnel, in this case psychiatrists. Usually there is resistance to substitution by those who are or will be adversely affected. The tension produced by the pressures for changes and resistance to these pressures determines the pace of the resulting pattern of substitution. In any case, such an analysis could give an indication of ways in which what is called mental health manpower has gradually expanded to include a considerably wider range of personnel than many experts would have thought possible as late as two decades ago.

The Growth of "Pop" Therapies

It has already been suggested that the explosion of interest in "pop" therapies during the late 1960s and 1970s may have helped to account for the decline in the relative earnings position of psychiatrists. Indeed, one hears anecdotal evidence that psychiatrists in some of the major urban areas have experienced a drop off in their clientele, presumably because of the availability of relatively inexpensive popular therapies. While anecdotes are interesting, little seems to be known about the emergence of these new groups of what might be termed "fringe"--but not necessarily quantitatively unimportant--mental health practitioners.

What accounts for the emergence of so-called pop therapies in the 1970s and the many purveyors of such therapies? To what extent were younger well-educated demanders of such treatment less able to purchase more conventional treatments due to the declining relative and real income position of younger people? Similarly, to what extent did college graduates with some interest and knowledge of the field (perhaps psychology and counseling majors) set themselves up to provide such treatments, given the absence of other better alternative jobs?

What made treatment by these new practitioners acceptable to at least part of the public? Did the emergence of this group cut into the traditional market for psychoanalysis and related treatments? Or was an entirely new market tapped by pop therapies? If the latter, what conditions gave rise to public acceptance of these therapies, acceptance by a public which is traditionally skeptical of new treatments that involve a degree of public exposure many people find uncomfortable?

Finally, if we think of these new treatments as representing a new product, how long is the demand for them likely to be sustained? The demand for most new products that succeed shows rapid growth initially, but subsequently growth slows and reaches a plateau. In some cases, this short-run growth in demand cannot be sustained and as a result, overall demand slips back to some lower, more permanent level. What will happen with the pop therapies? Will they turn out to be largely a fad, with no long run prospects for their remaining as viable treatments? Or will they take their place with other treatments and signal a permanent change in the nature of the industry and the providers of mental health care and treatment?

Many questions come to mind in thinking about the suppliers. How many such practitioners are there now? What has been the pattern of growth over the past decade and one-half? To what extent do these people devote full-time to these activities? Or are these services provided largely on a part-time basis? What are the earnings of this group for both full-time and part-time practitioners? What kinds of training do these people have? What prompted them to move into this kind of activity as compared to what they might have intended to puruse as careers? How difficult was it to get established? What kinds of pressures have they experienced from more established practitioners to leave the field or to limit their activities?

This group deserves careful study because it represents a new and different type of personnel that is attempting to estalish a place in the mental health field. Such people are no doubt viewed with disdain by the professionals because of their lack of credentials and superficiality of their approaches. Nevertheless, they constitute a new dimension of mental health services personnel that requires study.

Conclusion

In this paper I have attempted to indicate some key areas of research on mental health manpower. Because so little attention has been given to the subject, the number of questions to be answered is impressively large. I have focused on a few selected topics here, knowing that research on any of them will generate many additional questions and hypotheses. It is important, I believe, to undertake research that will help lay the groundwork for future research, As a result, I have emphasized the need to gain a broad understanding of the development during the 20th century of the mental health industry and the role of mental health manpower in this development. At the same time, it is critically important to develop better estimates of the number and variety of mental health personnel and the way in which their services are allocated across the various treatment sectors of the industry. With such information for several different points in time, it will be easier to begin understanding the nature of and reasons for the growth of and also shifts in the composition of mental health personnel. No explanation provided by economics can fail to take account of changes in relative earnings, and this leads to the suggestion that the operation of labor markets for mental health personnel be explored, specifically, that for psychiatrists whose economic position has deteriorated significantly during the past few years. Although a number of factors may account for this situation, the growth of popular therapies in the 1970s may be of some importance; in any case, the emergence of popular therapies merits serious

study for it may portend a significant change in the industry and the composition of its manpower. If we can begin to fill out our knowledge in these essential areas, the possibilities for expanding research in mental health manpower will be considerably enhanced.

FOOTNOTES

1/ Regier, D.A.; Goldberg, I.D.; and Taube, C.A. The de facto U.S. mental health service system. Archives General Psychiatry, 35:685-693, June 1978.

2/ The President's Commission on Mental Health, Vol.II Appendix, 1978. Report of the task panel on mental health personnel. pp.411-496.

3/ More recently there has been some shift away from institutional care, as a reflection of the "deinstitutionalization" process that began in the 1960s. For a useful account of this process, see Milbank Memorial Fund Quarterly/Health and Society, 57(4), Fall 1979.

4/ See Footnote No. 2, p. 488.

5/ See Footnote No. 2, p.484.

6/ See Footnote No. 2, p.455, for a more detailed description of these different groups.

7/ See Footnote No.2, p.488.

8/ See Footnote No.2, p.484.

9/ Research Notes. Center for Health Services Research and Development, American Medical Association, 2(2), Fall 1979.

10/ For several efforts of exploration of this question, see Matler, M.D. Why psychiatrists are behind the economic eight-ball. Medical Economics, February 1979; and Sharfstein, S.S.; and Clark, H.W. Why psychology is a low-paid medical specialty. Presented at annual meeting of American Psychiatric Association, May 14-18, 1979.

11/ For an example and other references, see Freeman, Richard B. The Overeducated American.

12/ An illustration of this approach is found in the papers of Cotton M. Lindsay. Real returns to medical education. Journal of Human Resourses, 8(3):331-348, Summer 1973. Real returns to medical education: A comment. Journal of Human Resources, II(1):118-126, Winter 1976, and for Lindsay's reply, see pp. 127-130.

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